



Flex Your Power Energy Conservation and Efficiency Campaign 2001-2002

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Flex Your Power Energy Campaign Executive Summary

The Perfect Energy Storm: 2000-2001

In late 2000, California's electricity supply system was facing serious shortages. At the time, analysts predicted that California's peak demand for the summer of 2001 could be short by as much as 5,000 megawatts (MW), and Californians could expect 34 days of blackouts. Analysts estimated that the financial cost of these power interruptions to California could reach \$16 billion.

Several key factors contributed to this situation, including a 12-year period with no construction of new major generation facilities, increased energy demand in California and the western United States, policy changes that adversely affected energy efficiency programs, drought conditions throughout the West and the shut down of power plants. The convergence of these factors created a type of "perfect storm."

The State's Conservation Solution

As early as August 2000, Governor Gray Davis issued three energy-related executive orders, which reduced energy consumption by state government and sped up the time it takes new power generating facilities to win approval from state agencies. In addition, the governor formally requested that the California Attorney General investigate suspected manipulation in the wholesale electricity marketplace. In September, the governor signed Assembly Bill (AB) 970, which provided the first major infusion of funds for state conservation and efficiency programs.

Faced with sudden and huge increases in the wholesale price of power and the threat of blackouts toward the end of 2000, the State of California worked quickly and aggressively to prevent a full-scale power crisis. By December, state agencies were ramping up a comprehensive outreach campaign to encourage Californians to conserve energy. In his January 2001 State of the State Address, the governor unveiled plans for a \$250 million investment in energy conservation, urging Californians to "flex the enormous clout we have as consumers. We are 34 million strong and the sixth largest economy in the world. By reducing our electricity demand — by even a small amount — we can reduce the price, avoid shortages and lower energy bills." The governor also proposed cash incentives for replacing inefficient refrigerators, clothes washers and air conditioners with more efficient models, as well as a comprehensive campaign to create energy-smart schools, homes, workplaces and communities.

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The Flex Your Power campaign was the most aggressive, comprehensive and integrated energy conservation and efficiency effort in the history of the United States.

In April 2001, Governor Davis unveiled the specific goals of the State's three-pronged energy management program, which tackled generation/supply side issues, stabilization/restructuring plans for the power industry, as well as a conservation/demand-side management strategy. The following report focuses on the third element of the State's energy management program: conservation and efficiency outreach.

Governor Davis named the Secretary of the State and Consumer Services Agency (SCSA), Aileen Adams, to head the State's conservation efforts and signed Senate Bill (SB) 5X and Assembly Bill (AB) 29X to provide funding — more than \$850 million — for the efforts, from incentives to outreach. The sum of these actions resulted in the Flex Your Power campaign — the most aggressive, comprehensive and integrated energy conservation and efficiency effort in the history of the United States. In this report, Flex Your Power refers to this integrated campaign, which was coordinated by SCSA and directed by Walter McGuire of McGuire and Co., Inc., and included outreach efforts by numerous state agencies, field staff and thousands of business, nonprofit and local government partners. This effort also included the advertising campaign and collateral related to the energy efficiency promotions. Flex Your Power, in the broadest sense, also included a comprehensive statewide media campaign that worked closely with these outreach efforts and was coordinated by Kathleen Hamilton, the director of the Department of Consumer Affairs (DCA).

Phases of Education and Outreach Efforts

Poll data in early February 2001 revealed that Californians grossly overestimated their current efforts to conserve energy. Therefore, it was imperative to Flex Your Power that the conservation education and outreach and advertising and media campaigns effectively educate residents on ways to reduce energy use and urge them to shift energy use away from peak hours to avoid blackouts. To that end, the State designed a comprehensive outreach campaign that targeted not only the general public, but also specific sectors and ethnic and age groups. The outreach campaign unfolded in three broad phases:

- **Phase 1: Conservation (especially at peak) and Leadership
(Summer 2000 to Spring 2001)**

During the first phase, DCA began an aggressive statewide paid media campaign that reached 95 percent of adult and teen Californians with information about energy conservation. This effort also focused on reaching African-American, Hispanic and Asian-American populations through targeted cable, radio and newspaper ads. The media campaign, which began in February 2001 with its educational conservation-at-peak message and tagline "And it's not even hard," lasted through the autumn months of 2002. During this period, the State drew up a comprehensive multifaceted campaign plan and recruited key organizations to participate in various initiatives to reach all Californians to drastically cut energy use. The State also took concrete actions in State buildings to provide the leadership and road map for others to follow.

In the spring, Governor Davis proposed, and the CPUC approved, the 20/20 Program, which provided businesses and residents an incentive to save energy by directing the investor owned utilities to give a credit of 20 percent for all customers who cut energy use by 20 percent or more from the same month in 2000. This program ran for the four summer months of 2001; and for residents only, it ran again for four summer months in 2002.

- **Phase 2: Partnerships and Momentum
(Late Spring through Summer 2001)**

During Phase 2 of the campaign, which ran from late spring through the summer of 2001, Flex Your Power announced the bulk of the 13 initiatives designed to recruit every Californian to participate in the conservation effort and immediately reduce energy demand. The initiatives targeted the commercial and industrial sectors, government, agriculture and residential. After identifying the target audiences, Flex Your Power placed field staff in five regions (Sacramento, San Francisco, Fresno, Los Angeles and San Diego), and tasked them to recruit partners in the commercial, local government, water, agricultural and residential sectors and to communicate with partners on a regular basis. The advertising tagline was changed to reflect this new cooperative phase: "Together we can get through this."

■ **Phase 3: Efficiency and Long-Term Behavior Change**
(Late Summer 2001 to Current)

Phase 3 of the campaign started at the end of a highly successful summer without blackouts, when California was ready for the final, and in the long view, the most important component of the outreach effort: locking in conservation behavior and focusing on energy efficiency. The initiatives launched during this final phase reemphasized the need for conservation and introduced and made energy efficiency accessible to all Californians. Again the tagline was changed to reflect this third phase, "Conservation, it's a way of life," and "Let's keep flexing our power. It's working."

***State
government led
by example
through energy
reduction,
tougher
building
standards,
extensive
outreach and
partnerships
with California
businesses.***

Flex Your Power Initiatives

Initiative #1: State Leadership

State government led by example. Early state leadership efforts included substantially reducing energy consumption in state buildings; developing the strongest energy-efficient building standards in the world; incorporating sustainable building designs and operations in state buildings; using every state department to reach out to its constituencies with powerful conservation messages; and building early partnerships with businesses and business organizations.

- **Major State Buildings Reduced Energy Use by More Than 20 Percent and Saved \$9.2 Million Over Two Years:** State facilities follow aggressive energy conservation protocols, which include reducing lighting loads, setting interior temperatures at energy-saving levels and reducing the use of nonessential office equipment and appliances. These measures enabled major state office buildings to reduce their overall energy consumption by 22 percent in 2001. In 2002, major state buildings continued to use approximately 20 percent less energy than in 2000. These efforts resulted in \$9.2 million in saved energy costs for the State in major state buildings alone. Energy efficiency retrofits of hundreds of state facilities also are underway, with the goal of saving an additional 100 megawatts (MW). As part of the retrofit process, the Department of General Services (DGS) undertook investment-grade energy audits in hundreds of facilities. Even the governor's residence was audited and retrofitted, cutting its utility bills nearly in half and saving taxpayers an estimated \$4,000 a year.
- **Strongest Energy Efficiency Building Standards in Country Adopted:** The strongest energy efficiency building standards in the country were developed and approved by the California Energy Commission (CEC) in record time and formally adopted by the California Building Standards Commission. Among other things, these standards, which went into effect on June 1, 2001, increase the emphasis designers and builders must place on air conditioning and heating ducts, where wasteful leaks often occur,

Flex Your Power challenged cities, counties and special districts to increase their commitment to conservation, pledge to cut energy use by an additional 15 percent and encourage similar action in the communities they serve.

and reduce the amount of solar heat that radiates into a home through windows and the attic. These building standards are saving an estimated 200 MW a year. In five years, the savings are expected to reach 1,000 MW a year — enough electricity to power an estimated 750,000 homes.

- **Sustainable Building Executive Order Ensured Efficiency and Cost Savings:** The governor's Executive Order D-16-00 required state agencies to design, site, build and operate buildings that are energy, water and resource efficient. An interagency Sustainable Building Task Force developed a comprehensive blueprint for implementing this executive order. One example of this collaborative approach to sustainable building design and construction is the Capitol Area East End project — the largest building project in the history of state government. The energy savings alone from this \$392 million, five-building complex are estimated to reach \$429,000 a year.
- **State Agencies Conducted Extensive Outreach to Encourage Conservation:** Each Cabinet agency used the thousands of daily contacts with citizens, businesses and others to spread information about energy conservation and efficiency. State agencies placed energy conservation messages on state websites, in millions of regular and special communications, lottery tickets, bumper stickers on state cars and mailings to professional licensees. These communications included:
 - Placing conservation messages on 19 million vehicle registration and license renewal notices, and more than 60 million messages in 2002;
 - Including conservation inserts in more than one million tax return information notices;
 - Contacting 97,000 businesses and business organizations in California;
 - Sending information to every school superintendent, child care center and charter school and establishing a facilities best practices website within the Department of Education website;
 - Distributing conservation tips at state parks and state museums like the California Science Center, which has 1.3 million visitors a year; and
 - Authoring articles on energy conservation in trade publications, newsletters and other professional media, such as the Employment Development Department's *California Employer* newsletter, which reached more than 900,000 subscribers, California Public Employees Retirement System's *PERSpectives*, which reached 1 million members, or the *CASBO Journal*, which reached thousands of school officials across the state.
- **Department of Water Resources Reduced Pump Peak Load by 14 Percent:** One of the State's largest users of electricity, the Department of Water Resources (DWR), participated in the California Independent Systems Operator (ISO) interruptible load program. When requested by the California ISO, the DWR interrupted up to 300 MW of pump load during peak hours, or almost 14 percent of its peak load, through March 31, 2001.
- **State Agencies Partnered With Business Community to Save Energy:** State agencies like the Technology, Trade and Commerce Agency (TTCA) and the SCSA partnered with a number of businesses and business organizations to encourage conservation. For example:
 - Governor Davis' Office of Emergency Services, California Highway Patrol, TTCA, and SCSA collaborated with businesses and industry associations to reduce after-hours outdoor lighting at retail establishments by 50 percent pursuant to an Executive Order. Industry association partners included the California Independent Auto Dealers Association, California Retailers Association, Califor-

nia Chamber of Commerce, California Grocers Association, California Hotel and Motel Association, California Restaurant Association and California Manufacturers Technology Association.

- McDonald's placed energy conservation messages on 4 million tray liners in 1,100 restaurants.
- The Silicon Valley Manufacturers Group (SVMG) distributed a series of e-mails with energy conservation information to thousands of high-tech employees throughout California.

Initiative #2: Energy-Efficient Communities/Local Government

Flex Your Power challenged cities, counties and special districts to increase their commitment to conservation, pledge to cut energy use by an additional 15 percent in their own facilities in 2001 when compared with 2000 and encouraged similar action in the communities that they serve. In total, 572 energy coordinators — representing 426 cities, 54 counties and 77 special districts — were recruited to participate in the campaign and serve as messengers of the Flex Your Power message.

- **Hundreds of Local Governments Pledged to Save Energy and Appointed Energy Coordinators:** Flex Your Power collaborated with the League of California Cities (LCC), the California State Association of Counties (CSAC) and the California Special Districts Association (CSDA) to develop a joint challenge letter and energy coordinator pledge for their members. The letter challenged local governments to:

- Pledge support to the Flex Your Power campaign.
- Reduce energy consumption by 15 percent compared with 2000.
- Identify an energy coordinator to work with Flex Your Power.

Throughout the campaign, Flex Your Power maintained regular communication with energy coordinators to pass on new information, share energy conservation and efficiency programs and policies, answer questions on energy conservation and efficiency and point them in the direction of experts for more technical assistance.

- **Local Government Trainings Held:** Flex Your Power worked with the LCC, CSAC, CSDA and the Office of Planning and Research (OPR) to develop local government trainings for energy coordinators to help them implement energy conservation programs. Between September 17 and 21, 2001, Flex Your Power hosted a series of three-hour trainings in each region, providing energy coordinators with information on the campaign and tools and resources for getting their conservation and efficiency efforts off the ground.
- **Local Government Partnership Efforts Coordinated:** Flex Your Power participated in bi-weekly Local Government Partnership meetings throughout 2001 to keep abreast of all activities, with an emphasis on energy-efficient communities. The meetings, which began in May 2001, were organized by the governor's office and attended by representatives from the Department of Health Services, Department of Aging, SCSA, DGS, LCC, CSAC, CSDA, CEC and the CPUC. The meetings provided representatives of local government groups with an opportunity to talk strategically about how local governments could be coordinated in their energy efficiency efforts and how programs were proceeding.
- **Public Outreach and Education Launched Through Local Partnerships:** With Flex Your Power's help in developing and distributing collateral, many local governments were able to launch public education and awareness campaigns. Flex Your Power provided thousands of residential and low-income brochures in English and

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Flex Your Power collaborated with BOMA and the SEIU to develop a joint, statewide energy conservation and efficiency program to immediately reduce energy use in commercial office buildings.

Spanish, lobby signs and kids posters. Local governments, with community-based organizations (e.g., Aging, Meals on Wheels, public assistance, churches), fire and police departments and others, also developed and coordinated a plan of action to assist the elderly and other at-risk populations and vulnerable small businesses. Through the summer of 2001, local government leaders participated in the Flex Your Power Light Brigade Initiative, organized by the California Conservation Corps (CCC).

- **Local Government Buildings Reduced Energy Use:** Local governments had great success implementing energy conservation and efficiency measures suggested by Flex Your Power. Notable success stories include:
 - **City of Paramount**, which has a population of 55,266, upgraded its heating, ventilating and air conditioning (HVAC) system in City Hall and implemented lighting retrofits. The city reduced energy use 23.1 percent in three facilities in a five-month period and received a rebate from Southern California Edison (SCE) as part of the State's 20/20 program.
 - **City of Poway**, which has a population of 48,000, was San Diego County's No. 1 energy saver in July 2001: It reduced energy use 27 percent compared with July 2000 through programs that included the installation of LED traffic lights, a lighting retrofit in city buildings and numerous rebates for people who purchased and installed energy efficient appliances and equipment.
 - **City and County of San Francisco**, which has a population of 776,733, in partnership with the CPUC, implemented 13 efficiency projects that were estimated to conserve 60 MW annually and as much as \$5 million a year in avoided energy costs.
 - **County of San Bernardino**, which has a population of 1,709,434, converted unused spaces into "cool centers" to help ease the summer heat for the county's low-income, disabled and senior-citizen populations. This project, coupled with a public education campaign and energy efficiency upgrades of city lighting and water systems, helped San Bernardino County reach its 10 percent goal.

Initiative #3: BOMA/SEIU Partnership: "Lights Out"

"Lights Out" was the first of three initiatives that challenged the business community to reduce energy demand. Flex Your Power, in coordination with the State, the Service Employees International Union (SEIU) janitors, the operating engineers and the Building Owners and Managers Association of California (BOMA), developed a joint, statewide energy conservation and efficiency program designed to promote the immediate reduction of energy use in office buildings and to educate employees and visitors to the buildings. Together, the SEIU janitors, the operating engineers and BOMA service and manage more than 500 million square feet of commercial office space and 2 million to 3 million workers. "Lights Out" asked the partners to commit to five main actions:

- Implement energy-efficient cleaning practices.
 - Conduct conservation training of building users.
 - Develop conservation programs.
 - Retrofit buildings for energy efficiency.
 - Disseminate conservation and efficiency information to building workers.
- **BOMA/SEIU Partnership Saved Energy in 300 Million Square Feet of Commercial Buildings:** BOMA facilitated Flex Your Power's effort to identify building managers and janitors around the State to serve as energy coordinators, provided rebate information in English and Spanish, disseminated Flex Your Power energy education materials to tenants and trained building workers. In total, more than 800 major com-

mercial office buildings throughout the State implemented “Lights Out” and Flex Your Power worked with energy coordinators to distribute thousands of posters for building lobbies and corridors, as well as hundreds of thousands of Flex Your Power conservation brochures. Success stories include:

- **Chevron Real Estate Services** in San Francisco had been practicing energy saving measures since 1991 (saving 50 percent on energy consumption), yet the company integrated many best practice measures recommended by Flex Your Power. These included retrofitting 25,000 light bulbs and turning off hallway lighting during business hours.
- **PM Realty** in San Diego reduced energy costs by educating tenants and employees to be energy aware and efficient; changing cleaning procedures; retrofitting lighting; and resetting timers to minimize lighting usage during the day. PM Realty saved 27 percent in energy costs.
- **Thomas Properties Group** in Sacramento initiated a new janitorial cleaning program for its building. Previously, janitors cleaned from 6 p.m. to 2 a.m. with 13 floors fully lit. Under a new cleaning and lighting program, janitors started work at 11:30 a.m., often using only core lighting. The program saved Thomas Properties \$100,000 (9 percent) annually.
- **The Delano Regional Medical Center** in Delano, Calif., took part in a lighting audit and delamped outside light bulbs; called for “lights out” in hospital corridors that had no patients; and asked security guards to check thermostat settings on rounds. The medical center saved more than 40 percent in energy costs in 2001.

More than 70 business associations and hundreds of businesses statewide committed to cutting energy use 20 percent in the summer of 2001 compared with the previous summer.

Initiative #4: CEO Business Leadership

- **CEO Business Leaders Committed to Conservation Goals:** Flex Your Power, in coordination with the State’s major business organizations and CEOs of prominent businesses, developed a pledge, under which businesses and employees committed to conservation goals and a course of action to achieve them. The CEOs and top executives were targeted because they could make immediate and significant decisions to conserve energy and commit to energy efficiency. Among other commitments, the declaration committed CEOs to achieve collectively an overall 20 percent reduction in energy use as compared with the same period the previous summer. Such conservation would focus on office and commercial operations and with an effort to optimize efficiency in industrial processes, to the extent possible, by taking some or all of the following steps:

- Set thermostats for occupied space at 70 degrees during the summer of 2001.
- Immediately reduce lighting levels by 25 percent and by an additional 25 percent upon the declaration of a Stage 2 energy shortage emergency.
- Close window blinds and shades.
- Turn off and unplug all office, kitchen and other equipment when not actively in use.
- Consider without prejudice and apply as appropriate those additional measures detailed in the list attached to the declaration.
- Name an energy conservation coordinator.
- Distribute Flex Your Power lobby signs, posters and brochures.

More than 70 business associations, including all the major ones statewide, and hundreds of major businesses made these commitments by signing the declaration and drastically cutting energy use during the summer of 2001. Over the remainder of the campaign, Flex Your Power enrolled 1,332 business energy coordinators and commu-

The Energy Education in Schools Initiative put energy-reduction information in the hands of teachers, principals, students and parents and implemented energy conservation partnerships and activities for the school year.

nicated with them regularly about energy efficiency opportunities, new initiatives and to promote the distribution of Flex Your Power collateral material. Success stories include:

- **Allergan, Inc.** in Los Angeles performed energy audits on all of its facility buildings to identify areas to reduce energy use. In 2001, compared with 2000, the company headquarters in Irvine, Calif., reduced electrical consumption 12 percent.
- **Automobile Club of Southern California** in Orange County retrofitted lighting and installed HVAC computer and energy management system upgrades throughout the company's 75 locations in 13 Southern California offices.
- **Bank of America** turned off outside lighting, including its "B of A" logo on all 1,000-plus buildings throughout the State, and implemented other Flex Your Power commitments such as delamping 25 percent of its lighting.
- **Gelson's Markets** in Los Angeles installed energy management systems to control lighting, HVAC and case warmers saving the supermarket chain roughly 500,000 kW annually.
- **Lockheed Martin Missiles and Space** in Sunnyvale participated in Pacific Gas & Electric's (PG&E) Demand Reduction Program. As part of the program, Lockheed retrofitted lighting and conducted an employee energy awareness campaign. In total, Lockheed received more than \$600,000 in rebates and realized energy savings of \$4.8 million in 2001.
- **Marriott International, Marriott Hotels** represents seven different hotel chains statewide. Through an aggressive energy conservation campaign, which included internal audits, retrofit improvements, conservation best practices, utility tracking and new lighting standards, Marriott achieved a BTU per square foot improvement in 2001 of more than 10 percent, with one of the hotels reporting an astonishing 50 percent improvement.

Initiative #5: Energy Education in Schools

Flex Your Power had two main objectives for this initiative: put energy-reduction information in the hands of teachers, principals, students and parents and develop and implement energy conservation partnerships and professional development activities in the 2001/02 school year. In developing the overall program, the SCSA and Flex Your Power met and collaborated with the superintendents and representatives in school districts throughout the State, state and federal agencies, utilities, science centers and more than 40 professional and educational associations and organizations. Their input and expertise resulted in the development of a broad range of program activities:

- **4th Through 6th Graders Statewide Used Energy Challenge Activity Kit:** Flex Your Power and the SCSA developed and distributed the Kids' Flex Your Power Energy Challenge – an energy activity kit and resource guide for all 4th, 5th and 6th grade teachers and students statewide. Approximately 135,000 students/households throughout California completed a home energy audit homework assignment included in the activity kit. More than 4,100 teachers received Energy Hero Awards for attaining 75 percent class participation on the energy audit homework assignment.
- **Grant Program Funded Innovative Teacher Projects:** The Energy Education Grant Program provided California K-12 teachers with the opportunity to receive grants of up to \$3,000 to support innovative projects to teach energy conservation and efficiency to their students. The SCSA awarded 210 energy education grants to schools in 31 counties. Funded projects included science exhibits, energy conservation murals, sci-

ence experiments, energy audits, field trips, professional development and energy patrols.

- **Grant Program Sparked Energy Education Art Projects:** The SCSA collaborated with the California Arts Council to fund the Energy Education Through Arts grant program, which presented an opportunity for artists in various disciplines – visual arts, theater, dance, music, literature and media arts – to develop creative approaches to teach energy conservation and efficiency. Grants of up to \$6,000 were awarded for artists to work with teachers and students in K-12 schools. Each grant also included a public display component, such as a staged performance, mural painting, poetry reading, video screening, touring exhibit or Internet art gallery. Twenty-four projects were funded in 15 counties, reaching an estimated 8,000 students and teachers.
- **Large-Scale Energy Education Projects to Reach up to 2 Million Students:** The Innovative Energy Education Grant Program enabled California schools, local governments and nonprofit organizations to receive grants of \$25,000 to \$200,000 for larger-scale innovative projects and activities that teach school children about energy conservation and efficiency. Most of the eight funded projects were regional and multi-county in focus and have the potential to reach up to an estimated 2 million K-12 students and 24,000 teachers and community members. Eligible projects included creating Web and other technology programs, conducting science fairs, designing and holding an assembly program for an entire school district, constructing a traveling exhibit, training teachers, creating energy conservation murals and reaching out to the community.
- **Central Valley Schools Implement Energy Efficiency Programs:** Central Valley School districts undertook a comprehensive energy education, teacher training and facility improvement effort. The program provided technical assistance to help school districts develop energy conservation projects that increased school site energy efficiency. Recently, the SCSA was awarded \$4.4 million from the CPUC to expand this Central Valley initiative. With this new funding, the SCSA anticipates that it will reach up to 50 school districts during the next two years.
- **Recycle Rex Assembly Program Expanded to Include Energy Conservation:** The SCSA partnered with the Department of Conservation to integrate a round of energy conservation questions into an existing Recycle Rex School Assembly Program — a fun-filled game show format for K-3 students that included prizes, student participation and an appearance by the other purple dinosaur, “Recycle Rex.” This partnership enabled the Recycle Rex Assembly Program to visit 850 teachers and more than 18,000 K-3 students at 68 schools in 12 counties during the 2001/02 school year with the message, “Recycling Saves Energy.”
- **Student Leadership Group Trained More Than 3,000 Students:** The California Association of Student Councils (CASC), a student leadership group that works with elementary, middle and high school student councils throughout the State, adopted energy conservation as a central policy focus and incorporated the message in its student leadership workshops and activities. This included expanding school outreach efforts, developing a mini-grant program for student councils to develop energy conservation activities at their school site and increasing the number of student leadership training seminars on energy conservation. To date, CASC has convened 20 energy workshops, training more than 3,000 student leaders. Through this program, the SCSA awarded 26 grants to schools in 16 different counties across the state.
- **California Science Center Created Energy Conservation Exhibits:** The SCSA partnered with the California Science Center in Los Angeles to develop a comprehensive energy conservation program, including energy conservation exhibits, a summer sci-

More than 3,000 student leaders were trained through workshops and activities on energy conservation and efficiency.

Flex Your Power conducted a vigorous outreach campaign to approximately 30,000 nonprofit organizations and community-based organizations across the State.

ence program, an energy conservation school outreach program that reaches up to 250 students at a time and an energy conservation exhibit that will travel to other science centers in the State. An estimated 1.3 million people a year, most of whom are children and students, visit the Science Center. This program is continuing throughout the 2002-2003 school year.

- **California Boys & Girls Clubs Implemented Model Energy Program:** The SCSA partnered with the Boys & Girls Clubs of America to coordinate and implement an energy program to a select group of 15 clubs in five regions of the State — Los Angeles, San Francisco, Sacramento, San Diego and Fresno. The clubs developed an energy conservation program for their members that included basic energy education, peer-to-peer training, community and family outreach, creative projects, regional conferences and community events. This California model is being used as a national model for other Boys & Girls Clubs around the country.
- **Green Schools Program Achieved Energy Savings at Schools:** The Alliance to Save Energy's (ASE) Green Schools Program is a highly successful, holistic energy conservation program that has been implemented in numerous cities and school districts throughout the nation. By using energy audits, energy patrols, classroom projects and facility operator training, the Green Schools Program achieved between 10 and 15 percent energy savings on average at the schools where it was implemented. The SCSA partnered with the ASE to increase the number of school districts implementing Green Schools in the State. The SCSA funded activities in more than 20 schools in about 10 school districts, with more programs still to come.
- **San Diego Schools Achieved Energy Conservation and Efficiency Measures:** San Diego Unified School District (SDUSD) is the second largest district in California and the eighth largest urban district in the United States. San Diego was the first region in California to experience the price increases associated with the energy crisis. As a result, the SDUSD implemented a number of energy conservation and efficiency activities at its facilities, including ENERGY STAR[®] benchmarking and retrofit projects.
- **Incentive Program Promoted Energy Education and Conservation in Riverside/San Bernardino:** The Energy Education and Conservation Incentive Program consisted of a full range of energy education and efficiency activities to promote energy conservation within seven school districts in Riverside and San Bernardino counties and provided technical assistance to these school districts as well as other programs. Activities associated with this program included disseminating energy education curriculum, conducting teacher trainings, and providing technical assistance to schools on specific energy retrofit projects.

Initiative #6: Nonprofit/Community-Based Organizations

Flex Your Power conducted a vigorous outreach campaign to approximately 30,000 nonprofit organizations (NPOs) and community-based organizations (CBOs) across the State and challenged them to pledge to reduce energy consumption by 20 percent and communicate an energy conservation message/pledge to their millions of members. Flex Your Power estimated that with the help of NPOs and CBOs, the campaign reached approximately 2.2 million state residents with educational information about energy conservation and efficiency.

- **Partnership Developed With California Association of Nonprofits (CAN):** Flex Your Power and the CAN jointly developed a Declaration of Action for nonprofit energy conservation modeled after the CEO Declaration. Flex Your Power distributed the Declaration to 30,000 NPOs and CBOs. Regular communications with CBOs

enabled Flex Your Power to answer questions, address concerns and provide further conservation tips. A total of 567 nonprofit organizations signed the pledge.

- **NPOs/CBOs Led by Example:** In addition to spreading the energy conservation message to its members through newsletters, websites and e-mails, many NPOs/CBOs took steps to reduce energy use in their facilities.
 - **The American Lung Association** reduced its electricity use by as much as 25 percent. The Central California affiliate adopted a four-day workweek through September, which resulted in a 44 percent decrease in electricity consumption in a month. The Santa Clara/San Benito affiliate used fans throughout its office. Energy-saving light bulbs and conservation information were distributed at American Lung Association of California board meetings.
 - **The Inter-Tribal Council of California** provides community resources information to Native Americans statewide. A Flex Your Power message was inserted into the Council's August newsletter, which was sent to 112 tribes statewide, reaching out to approximately 150,000 Native Americans. Inter-Tribal Council staff set thermostats at 78 degrees F, turned off lights and vents in all unoccupied office rooms and turned off all office machines when not in use. Break-room machines and refrigerators were either turned off when not in use or their thermostats were raised.
 - **Mercy Housing California**, which develops low-income housing, reached out to 1,000 tenants/residents in the Sacramento area via newsletters with the Flex Your Power conservation message; cut energy use 34 percent by changing office hours to 6:30 a.m. to 3:30 p.m. during the summer; turned off half of all the lights in the office; kept the thermostat at 78 degrees F for the summer months; and made sure that office equipment was set to the "save energy" mode when not in use. Mercy Housing qualified for a 20/20 rebate, and was able to, along with another tenant, cut energy use 32 percent in its entire building.

***Under the
"Light Brigade"
Initiative, more
than 1.9 million
CFLs were
personally
distributed to
nearly half a
million homes
statewide.***

Initiative #7: "Light Brigade"

To reach California's low-income residents, Flex Your Power coordinated with the California Conservation Corps (CCC) to implement the "Light Brigade" Initiative, a 17-week door-to-door walk in low-income neighborhoods throughout the State to provide home energy-audit education, rebate information and free compact fluorescent light bulbs (CFLs). Flex Your Power coordinated the printing of brochures, media and public information.

- **1.9 Million Light Bulbs Distributed to Nearly Half Million Homes:** Between May and August 2001, the CCC and Local Corps mobilized more than 1,100 corpsmembers to participate in the initiative. Corpsmembers walked 7,300 miles and distributed more than 1.9 million energy-saving CFLs to 475,000 residences and 1.4 million Flex Your Power Energy Saving Tips brochures to more than 700,000 residences.
- **Coordination and Participation of Local Government Encouraged:** Flex Your Power worked to ensure coordination between the CCC and local government officials. Each week, Flex Your Power sent a list of cities and neighborhoods that the Light Brigade was planning to visit and worked with the League of California Cities (LCC), California State Association of Counties (CSAC) and California Special Districts Association (CSDA) to post the information on their websites to give their cities, counties and special districts "advance warning" of the Light Brigade in their community. Flex Your Power's coordinating efforts encouraged county, city and elected officials officials to participate in the Light Brigade.

The campaign secured 261 energy coordinators and pledges from water agencies to cut energy use by 15 percent in their facilities.

Initiative #8: Agriculture Action

Flex Your Power developed the Agriculture Action Initiative and coordinated a task force to challenge agricultural producers, processors and irrigators to cut their energy consumption by improving agricultural-pumping and agricultural-processing efficiency through operational changes and retrofits. The initiative aimed to help agriculture businesses learn how to shift loads off-peak, determine what retrofits would be most suitable and take advantage of available funding for such retrofits. The campaign formed partnerships with agricultural businesses, county farm bureaus, agricultural energy and irrigation organizations and other agricultural groups, through which Flex Your Power distributed 53,000 brochures with basic information on funding programs.

Additionally, the Department of Water Resources (DWR) Office of Water Use Efficiency conducted outreach activities that included: helped with mobile irrigation laboratories; coordinated with the California Rural Water Association to present workshops related to rural water conservation, irrigation and financial assistance; partnered with the University of California Cooperative Extension to conduct workshops on irrigation scheduling; wrote and printed publications and articles on the issues; and used its websites to educate the agricultural community on water/energy conservation.

Initiative #9: Save Water — Save Energy

Flex Your Power teamed up with both public and private water agencies to maximize conservation of water and energy statewide. The idea was to promote a new conservation message that saving water also saves energy. Indeed, up to 7 percent of the State's energy is used to pump and clean water. The overall goal was to get as many of the public and private water and wastewater districts in the State to make a pledge to reduce energy use by 15 percent through water and energy conservation measures in their facilities and in the communities they serve.

- **Hundreds of Water/Wastewater Agencies Pledged to Cut Energy Use and Appointed Water/Energy Coordinators:** Flex Your Power met frequently with the State's Department of Water Resources (DWR) and seven statewide water associations to develop an initial packet for water and wastewater agencies that included a joint letter, a five-point energy plan pledge, an energy coordinator form and a summary of the initiative. The letter challenged 1,130 water districts throughout the State to promote the message that saving water also saves energy. Flex Your Power also worked with the associations and the DWR to develop an extensive water/energy coordinator information packet for participating water agencies. In the end, the initiative secured 261 energy coordinators and pledges from water agencies to cut energy use by 15 percent in their facilities.

Throughout the campaign, Flex Your Power maintained contact with the water/energy coordinators to pass along updates and new information such as the programs and policies of other water agencies, answer questions on conservation and efficiency and point them in the direction of experts for more technical assistance.

- **Agencies Committed to Public Outreach and Education:** Water and wastewater agency partners supported Flex Your Power public outreach and education efforts in two key ways: Flex Your Power distributed Save Water, Save Energy lobby signs and brochures to their communities and helped to spread the word about Energy Efficient Appliance Awareness Promotions. Flex Your Power designed the awareness week, held August 11-18, 2001, to:
 - Create energy savings at each retail store level through conservation and efficiency measures;

- Increase sales of ENERGY STAR® appliances (clothes washers) through promotion of ENERGY STAR® appliance rebates offered by energy and water utilities, newspaper ads and collateral materials promoting the benefits of ENERGY STAR® appliances; and
 - Raise salesperson awareness of the benefits of ENERGY STAR® appliances through sales training materials.
- **Water/Wastewater Facilities Reduced Energy Use:** Flex Your Power's extensive marketing of the rebate, grant and loan programs offered by the CEC and utilities made it possible for many water and wastewater agencies to implement a variety of energy efficiency and conservation programs. Success stories include:
- **Central Contra Costa Sanitary District (CCCSD)** in Martinez, Calif., installed a modified air inlet to its existing cogeneration gas combustion turbine, which produces 3,000 kW (90 percent) of the treatment plant power requirements. The modified air inlet increased net power production by 200 kW. Despite renovations CCCSD was able to reduce imported electrical power by 58 percent in 2001 compared with 2000.
 - **Foothill Municipal Water District** in La Canada Flintridge, Calif., revamped its energy conservation effort in March 2001 by incorporating a public outreach campaign; working with the Foothill Fire Department to coordinate power conservation with fire fighting efforts during peak summer months; auditing all facilities; and retrofitting lights with CFLs. A June 1, 2001, bill showed an energy use reduction of 15 percent.
 - **Humboldt Bay Municipal Water District** in Eureka, Calif., replaced aging water pumps with energy-efficient pumps, for a 44 percent reduction in energy usage during June 2001 and a 54 percent reduction in July 2001.
 - **Moulton Niguel Water District** in Laguna Niguel, Calif., used programmable logic controllers to control off-peak pumping. This technology enabled 77 district pumping stations to benefit from lower off-peak utility rates, saving the district \$320,000 each year and reducing its energy bill by 20 percent.

The campaign canvassed small business districts to recruit small businesses to distribute energy conservation brochures, to provide information about retrofit programs and provide a free energy audit.

Initiative #10: Small Business

Flex Your Power canvassed business districts in the five primary California regions for four weeks during the late summer and early fall of 2001 with three objectives: to recruit as many small businesses as possible to distribute Flex Your Power energy conservation brochures; provide information about small-business retrofit programs, including rebates and loans offered by utilities and no-cost/low-cost recommendations such as minor lighting upgrades; and provide a free energy audit to small businesses to help them determine the most energy and cost-efficient retrofits for each store. Small businesses were then contacted for a free energy audit by home improvement stores that Flex Your Power recruited — most notably Home Depot. Another feature of this initiative was Flex Your Power's work with Philips Lighting, which, at its own expense, retrofitted all lighting over a full city block in the City of Berkeley. The widely circulated results of this pilot showed an energy savings of 45 percent.

Initiative #11: Energy-Efficient Appliances, Lighting and Home Improvement Products

Flex Your Power's most far-reaching initiative designed to achieve long-term savings through energy efficiencies was the Home Improvement and Appliance Awareness Initiative promotions, a partnership program between Flex Your Power and the manufacturers and retailers of energy-efficient appliances, lighting and other products throughout the

The five promotions, held between August 2001 and October 2002, led to a 100 percent increase in the sale of energy-efficient appliances and an astonishing 400 percent increase in the sale of energy-efficient lighting.

State. In planning this initiative, Flex Your Power sought to address several obstacles to successful energy-efficient appliance promotions:

- Utilities did not run significant promotional campaigns for energy-efficient lighting, equipment and appliances.
- Investor-owned utilities (IOUs) and municipal utilities offered rebates on different products, at different rebate levels and often at different times throughout the year.
- Retailers and manufacturers did not vigorously promote energy-efficient products in the State because of the patchwork of incentive programs.
- Advertising was impossible because there were different products and rebate levels within each media market.

- **Task Force Meetings Convened With Stakeholders:** Throughout the summer, Flex Your Power convened meetings with stakeholders, such as utilities, manufacturers and retailers, to identify what they could commit under this initiative, as well as what the State could offer to encourage manufacturers and retailers to participate. The task force concluded that manufacturers would participate if they saw a long-term planning strategy and coordination among key partners, utilities and the State. The major promotion developed by Flex Your Power included newspaper ads, retailer recruitment, collateral material and salesperson training, which made it far more likely that energy-efficient products would be shipped to the California market by manufacturers.

Flex Your Power developed actions, to which retailers agreed to undertake in order to participate:

- Make best efforts to reduce energy use in their stores by as much as 20 percent;
- Sell ENERGY STAR®-qualified products;
- Train all sales associates on the benefits of efficient appliances using salesperson training cards and pocket cards written, printed and provided by Flex Your Power (to help retailers sell the products, Flex Your Power developed these training brochures for sales staff); and
- Display and handout educational materials provided by Flex Your Power emphasizing the value of energy-efficient appliances along with valuable energy efficiency tips.

- **Energy Efficiency Appliance and/or Home Improvement Awareness Promotions Successfully Launched:** Flex Your Power recruited about 1,200 retail appliance and home improvement stores throughout the state and developed and delivered brochures and point-of-purchase signage for participating stores, tailoring the collateral to the season and available products. Full-page ads promoting energy-efficient products and listing all participating retail stores were placed in major newspapers statewide. The five promotions, held between August 2001 and October 2002, led to a 100 percent increase in the sale of energy-efficient appliances and an astonishing 400 percent increase in the sale of energy-efficient lighting. The promotions were:

1. **ENERGY STAR® Sales Skyrocketed, August 2001:** The first Appliance Awareness Promotion was a huge success. Flex Your Power recruited 578 appliance retailers to participate in the promotion (a number that has grown to nearly 1,200 in subsequent promotions). Rebates were available for most products involved in the promotion thanks to SB 5X legislation passed in response to the energy crisis. Numbers from one of the major retailers and accumulated sales numbers from all ENERGY STAR® manufacturers compared the increase in the percentage of ENERGY STAR®-qualified appliance sales during the promotion with sales during the same period a year ago. Figures showed that:

- Sales of clothes washers rose 110 percent in California compared with a 50 percent increase nationally;
 - Sales of refrigerators rose 50 percent in California compared with a 12 percent increase nationally; and
 - Sales of dishwashers rose 100 percent in California compared with a 50 percent increase nationally.
2. **Winter Home Improvement Products Promoted, January 2002:** After the success of the first Appliance Awareness Promotion in August 2001, Flex Your Power organized a second efficiency promotion, Winter Home Improvement Products Awareness. The goal was to remind Californians that conservation continued to be important during the winter and to promote home improvement efficiency products. This pilot home improvement promotion focused specifically on energy-efficient home improvement and weatherization products to residential customers. Hardware and home improvement retailers showcased ENERGY STAR®-qualified CFL bulbs and/or fixtures, caulking, weather stripping and other home improvement products designed to help consumers save on their utility bills. Unlike the first appliance promotion, there were no rebates (at least not in the IOU service areas) supporting this promotion due to the CPUC timetable in approving the programs. A total of 586 stores participated in this promotion, and, once again, thousands of brochures and signage were distributed in addition to tip cards and training kits to all salespeople.
 3. **Statewide Advertising Supported First Joint Appliance and Home Improvement Promotion, May 2002:** The goal of this joint appliance and home improvement initiative was again to re-focus consumer attention on the measures they could take in the spring and summer to manage hot-weather energy costs and to assist the State in managing the overall energy demand. The promotion built upon the previous promotions, combining the stores and products of the first two promotions, and was scheduled to coincide with the announcement of rebates for energy efficiency products. As in the earlier promotions, it was promoted with Flex Your Power recruitment, collateral materials and newspaper advertising. New retailer incentives to this promotion included statewide TV and radio advertising and a second full-page newspaper ad listing the products and partner retail stores. A total of 1,072 stores participated in this promotion.
 4. **Water Rebates Coordinated With August Promotion, August 2002:** This second joint Energy Efficient Appliance, Lighting and Home Improvement Product Promotion launched the week of August 19 and coordinated closely with water agency rebate and promotional programs. Like the May 2002 promotion, it included TV, radio and two full-page newspaper advertisements. All the same commitments, collateral and other elements of the earlier promotions started to become standard for these promotions. A total of 1,064 stores participated in this promotion.
 5. **More Than 1,200 Stores Participated in Fifth Promotion, October 2002:** This final Energy Efficient Appliance and Home Improvement Promotion of 2002 permanently cemented the concept of coordinated energy efficiency programs statewide in California. The IOUs and most major municipal utilities and water agencies plan to continue coordinating rebate levels and products and have indicated a desire to continue working with Flex Your Power on the planning and marketing of future promotions. As an indication of the program's acceptance, more than 1,200 stores participated with hundreds faxing in their participation

Grocery stores across the State distributed more than 13.5 million Flex Your Power flyers with conservation tips to residents during the week of the Labor Day holiday.

The overall message of the initiatives was conveyed through the statewide paid advertising campaign.

agreements within hours of receiving it. These stores have come to expect the coordinated promotions and educational collateral material.

Initiative #12: Grocery Store Customer Awareness

Flex Your Power asked grocery stores across the State to participate in the campaign's effort to promote conservation during the "dog days" of late August 2001 and Labor Day weekend. The California Grocer's Association answered the call and agreed to help Flex Your Power reach member grocers. A major effort, called the Grocery Store Customer Awareness promotion, was undertaken to reach millions of people during these hot, energy-vulnerable days. California grocers distributed flyers/bag stuffers, which were developed by Flex Your Power, highlighting energy-savings tips for home and office, as well as contact information on how to learn more about conservation and rebates. The campaign recruited 3,000 grocery stores, including major chains such as 7-Eleven, Albertson's, Safeway, Kroger, Food 4 Less and Whole Foods, to pass out 13.5 million flyers to residents statewide.

Initiative #13: University/College Campus Outreach

Recognizing that the State's university/college community was a hard-to-reach, yet critical audience to whom it had to spread the message of energy conservation, Flex Your Power developed the University/College Campus Outreach Initiative. In the fall of 2001 and the early winter of 2002, Flex Your Power designed and distributed 1.05 million bookmarks with energy conservation messages and 1,000 bookmark holders to 151 campuses and 284 participating facilities — reaching as many as 1.05 million people.

Media and Advertising Campaign

The statewide paid advertising campaign, supervised by the Department of Consumer Affairs (DCA), provided the overall message context of the initiatives. The ad campaign included simple messages executed through an integrated mix of TV, radio, print and outdoor advertisements targeted toward different demographic groups throughout California. The media campaign relied on three important components:

- Brand equity — A logo for the Flex Your Power campaign was created to bring a visual coherency to the campaign, serve as a shorthand message to remind Californians to conserve and, most importantly, build brand equity to give the campaign credibility when promoting initiatives in 2001/02 and so that use of the logo would be an incentive for partners.
- Message tone — The tone of the Flex Your Power messages avoided placing blame in order to more positively encourage an immediate response from the public. The messages communicated that it was in the power of the public to make a difference. Hence, Flex Your Power and the various taglines throughout each phase.
- Message frequency and diversity — The advertisements ran frequently so that every Californian either saw, heard or read and remembered the messages.

The simple messages of the media campaign followed the phase development of the outreach campaign, tying the entire conservation and efficiency education effort together.

- **Winter Tips Broadcasted Statewide:** DCA's Flex Your Power ad campaign unveiled a series of winter tips in TV and radio commercials on February 5, 2001. These ads conveyed information on how to conserve. The tagline was, "And it's not even hard."

These ads ran in the general market, as well as in traditionally African-American and Hispanic markets. The ads presented no-cost conservation measures that when implemented by many people could add up to considerable energy savings (such as unplugging unnecessary appliances and asking people to shift energy use to off-peak hours). The first round of ads ran through March 25, 2001, reaching 95 percent of California teens and adults.

- **Conservation at Peak Emphasized:** Polls indicated that most Californians did not understand the concept of “peak” (when statewide use of electricity was at its highest level producing the greatest potential for forced outages). During winter months, electricity use typically peaked between 4 and 7 p.m. During summer months, statewide electricity use peaked during the mid- to late-afternoon hours, as a result of high air-conditioning use. In addition, summer months typically represented the highest statewide use of electricity compared with the rest of the year. When the advertising campaign resumed in the first week of May with warm-weather conservation tips, the goal was to drive home the conservation message so that California could avoid blackouts during these high-energy-use summer months. Flex Your Power shifted its advertising and media campaign to emphasize two primary messages:
 - Reduce energy use during peak hours. Conservation at peak hours was the key to avoid potential blackouts during the summer.
 - Adjust air conditioning thermostat to 85 degrees F while away and 78 degrees F while at home.

As mentioned above, the overall campaign was entering Phase 2 at this point, building momentum by assembling and announcing partnerships to conserve energy. The ads reinforced this by stressing the commonality of the problem at hand and the need for all Californians to work together to solve the problem. The tagline for the advertisements was, “Together we can do this.”

- **Media Campaign Overcame Challenges in 2002:** California’s situation in the winter of 2001/02 presented significant challenges to the media campaign because many Californians believed the crisis was over, and after September 11, “free” news media about the energy shortage fell dramatically. Yet the State’s energy supply was still a potential major problem. Flex Your Power had to keep Californians conserving to avoid blackouts particularly in the vulnerable San Francisco Bay Area during the winter of 2001/02 and through the summer of 2002. The media campaign presented messages that reflected the third efficiency phase of the campaign. The messages were:
 - The crisis is not over. California has to keep up its conservation efforts to avoid blackouts in winter 2001/02 and beyond. The message was, “Let’s keep flexing our power. It’s working.”
 - Conservation and efficiency should be a long-term habit. The tagline became, “Conservation, it’s a way of life.”

On April 29, 2002, DCA and Grey Worldwide launched a new \$35 million spring/summer 2002 ad campaign, which for the first time included cable outlets directed toward African-American, Hispanic and Asian-American audiences. The CPUC directed an additional \$8 million from the public goods charge to Flex Your Power to develop TV, radio and print ads that featured energy efficiency tips to the general public and supported the appliance, home improvement promotions.

In the winter of 2001/02, DCA conducted a media awareness survey sent to more than 400 Californians and found that:

- Positive commitment to energy conservation had risen to 81 percent.
- The belief that conservation could solve California’s energy problems increased to 75 percent.

California’s situation in the winter of 2001/02 presented major challenges to the media campaign because many Californians believed the crisis was over, and after September 11, “free” news media about the energy shortage fell dramatically.

“Californians truly flexed their power, conserved at unheard of levels and saved money,” said Governor Davis. “Energy conservation and improved efficiency made a crucial difference in 2001.”

- Awareness of any advertising or messages related to the electricity crisis was 67 percent.
- Those Californians who were aware of the Flex Your Power ads were more likely than others to conserve now, plan to conserve in the future and believe that conservation could solve the problem.

2001 Campaign Helped Reduce Statewide Energy Use Nearly 7 Percent and Up to 14 Percent at Peak

The 2001 Flex Your Power campaign was the most successful energy conservation campaigns in history. Through the conservation efforts of millions of consumers and thousands of businesses, California sailed through the summer of 2001 without a blackout and effectively conserved up to 5,570 MW at peak — surpassing all expectations. More than 3 million consumers (33 percent of the population) saved 20 percent on their energy bills by reducing energy consumption a minimum of 20 percent. In January 2002, the CEC released data that stated California residents used 8.9 percent less electricity during peak hours and 6.7 percent less energy overall in 2001 when compared with 2000’s electricity use. And most important, during the hot summer months, when most needed, Californians saved an astonishing 14 percent at peak in June. There were 29 days during the summer of 2000 when the demand in the California Independent System Operator’s (CAISO) area exceeded 40,000 MW. By contrast, there were only six of these high-demand days during the summer of 2001.

Some have contended that California reduced its energy use because its economy was in a recession during the summer of 2001 or because the weather was cooler than in previous summers. But statistics do not support these assertions. In fact, there was a general increase in economic activity from 2000 to 2001, as well as a steady increase in population, at the same time that electricity demand fell. Secondly, the summers of 2000 and 2001 each ranked as the 25th warmest summer in more than a century, yet Californians averaged a 10 percent cut in their electricity use during summer peak hours and, again, reached a record demand reduction of 14 percent (5,570 MW) in June 2001.

Many factors contributed to the incredible energy savings. Front-page press creating a crisis atmosphere and voluntary actions stimulated by the campaign’s media and initiatives certainly played a role. There was also no shortage of motivations: fear of high rates, potential cost savings, the 20/20 and other rebate programs, altruistic reasons and, of course, mandates such as the governor’s executive order on outdoor lighting and the CEOs’ directives to corporate energy managers to cut energy use. Flex Your Power organized all of these factors into a clear strategy, concise messages and a realistic timetable. The governor and legislature provided the needed funding, tools and support, without which these results would not have occurred.

Governor Davis said after the first year of the Flex Your Power campaign, “I am proud of what Californians accomplished. Many experts doubted that conservation alone could make a crucial difference. Californians truly flexed their power, conserved at unheard of levels and saved money. Energy conservation and improved efficiency made a crucial difference in 2001.”

California's Energy Situation Leading Into 2002

Despite the successes, California's energy outlook was still tight going into 2002. Drought conditions in the Pacific Northwest, power plant outages and limited generation continued to constrain the State's energy supply in the winter of 2001/02 and the summer of 2002. Complicating the effort was a decline in the public's interest and a sense that the crisis was over — especially in light of the country's economic recession and the September 11 terrorist attacks. These events diverted the public's attention — and the State's finances — away from energy conservation and efficiency efforts. It was imperative that statewide energy demand and consumption remain low to prevent any blackouts.

Still the situation was not entirely hopeless. There were a number of factors that lessened the risks of an energy shortage in 2002, including increased generation and installed efficiencies from the prior year. Additionally, public understanding of the issue of conservation and of the Flex Your Power campaign helped the campaign more easily continue its education and outreach initiatives throughout 2002.

Flex Your Power's objective in 2002 was to build upon the success of both the conservation and the efficiency elements of the 2001 campaign.

2002 Campaign Continued the Successes of 2001

Flex Your Power's objective in 2002 was to build upon the success and continue the key initiatives of both the conservation and the efficiency elements of the 2001 campaign. One of the most important changes in 2002 was Flex Your Power's success in convincing all the IOUs and the major municipal utilities to offer consistent rebates and efficiency programs, and jointly promote a residential rebate program with Flex Your Power and manufacturers and retailers. With this statewide consistency — and the great success of the early promotions — Flex Your Power was able to convince major manufacturers and appliance and hardware stores to participate in four other promotions in 2002, this time including both home-improvement efficiency products, lighting and appliances. As described earlier, nearly 1,200 appliance, lighting and hardware stores participated in the last promotion. The success of these promotions cemented the concept as a permanent and ongoing part of energy efficiency programs statewide.

In 2002, the campaign also marketed new conservation and efficiency programs; altered the messages and strategies of some initiatives so that they focused first on energy efficiency; and continued to foster relationships with energy coordinators in all sectors. The new initiatives included:

- **Demand Reserves Partnership Helped Maintain Electricity Supply:** Flex Your Power actively marketed the California Power Authority Demand Reserves Program, which gave businesses, water agencies and local governments the opportunity to draw down power prior to a staged alert. Flex Your Power's efforts to promote the program included outreaching to coordinators statewide who were deemed eligible for the program (e.g., not direct-access customers.)
- **Top Energy Reducers Recognized Through Flex Your Power Awards:** Organizations, businesses and local governments that made extraordinary energy conservation and efficiency efforts in 2001 were publicly recognized and received awards presented by State officials in Sacramento.
- **Lead by Example With Best Practice Guides:** The Flex Your Power team documented case studies of many of the successful energy conservation and efficiency programs implemented by various sectors in 2001. In addition to sharing them with their

Approximately 33 percent of SDG&E customers, 32 percent of SCE customers and 29 percent of PG&E customers qualified for 20 percent rebates in August 2002.

network of energy coordinators as part of its ongoing communications, the case studies were assembled in a set of best practice guides and shared with other organizations in the hope that they will replicate the programs.

And finally, Flex Your Power continued its successful advertising and media campaign. The focus in late 2002 was on congratulating residents and businesses for their efforts to reduce energy consumption and reminding them to continue conservation, particularly at peak, make energy conservation a way of life and promote the purchase of energy-efficient equipment, lighting and appliances.

Final Results of the Flex Your Power Campaign

By the end of 2002, the State's efforts, including the Flex Your Power campaign, had successfully educated Californians about conservation and helped instill conservation as a way of life. The campaign had helped the State escape two high-temperature summers without blackouts and lessened the risks of an energy shortage in the future. Data from the State conservation programs, such as the 20/20 program, demonstrated that Californians continued to save energy and money. Approximately 33 percent of San Diego Gas and Electric (SDG&E) customers, 32 percent of Southern California Edison (SCE) customers, and 29 percent of PG&E customers qualified for 20 percent rebates in August 2002, according to preliminary numbers from the CPUC. These resources conserved at least 20 percent as compared with 2001.

Following the unveiling of the new "Power to the People" Flex Your Power ad in October 2002, which featured the John Lennon song by the same name and thanked Californians for embracing energy conservation and efficiency, Governor Davis congratulated Californians for stepping up to the energy challenge. He stated, "By flexing their power, Californians have made all the difference. This has helped save energy statewide and kept money in the pockets of consumers."



Chapter 1:

California's Energy Situation Leading Into 2001

Overview

In late 2000, it became apparent that California's electricity supply system was encountering serious difficulties. According to analysts, the situation was only going to get worse: In 2001, demand was going to increase. If the energy supply situation did not change, California's peak demand for the summer of 2001, according to the California Energy Commission (CEC) in February 2001, could be short by as much as 5,000 megawatts (MW),¹ enough electricity to power more than 3.7 million homes. Based on historical data, the California Independent System Operator (California ISO), the organization that runs 85 percent of California's electricity grid, determined that outages occur anytime demand exceeds 40,000 MW. Accordingly, the California ISO predicted that the State could expect at least 34 days of blackouts during the summer of 2001.² Analysts estimated that the financial cost of these power interruptions to California could reach \$16 billion.³

Seven key factors contributed to this situation. Alone, any of these factors may not have posed a significant problem for the State. Together, they created a type of "perfect storm."⁴

1. **No New Generation:** In the 12 years preceding the summer of 2001, no new major power plants were built in California. Uncertainty in the early 1990s about the future regulatory structure of the State's electricity industry had slowed power plant development. The State's capacity to generate power declined 5 percent in the 10 years between 1988 and 1998.
2. **Increased Demand in California:** Although California historically is one of the most energy-efficient states based on per person use, its population and economy make California the second largest consumer of electricity behind Texas. Representing 12 percent of the nation's population, California uses 7 percent of the country's total electricity.⁵ During the 1990s, California's population growth, along with increasing economic activity, led to increasing demand for electricity. During the 1990s, the population of California increased 13.8 percent,⁶ or an

*Seven factors
together
created a type
of "perfect
storm" in the
winter of
2000/01.*

1. The CEC and the Electricity Oversight Board, "California Summer 2001 Forecasted Peak Demand — Resource Balance," Feb. 8, 2001.
2. The California ISO, "2001 Summer Assessment," March 22, 2001, p. 27.
3. Bay Area Economic Forum, "The Bay Area: A Knowledge Economy Needs Power," April 20, 2001, p. 34.
4. Laura M. Holson, "Once More, California Comes Close to Running Out of Electricity," *The New York Times*, Dec. 6, 2000.
5. The CEC, "2002-2012 Electricity Outlook Report," February 2002, p. 17.
6. Governor's Office of Communications, principal researcher and editor Drew Mendelson, with assistance from the Governor's Office of Planning and Research (OPR), the California Public Utilities Commission (CPUC) and the CEC, "California's Energy Story: A Chronology 1976-2001," May 4, 2001.

California traditionally imports 20 percent of its electricity. Due to regional demand growth, available imports declined by 28 percent between 1999 and 2000.

average of 1.3 percent per year (see Table 1-1.), and California's economy, driven by the high-tech industry, grew an average of 2.8 percent per year.⁷

As seen in Table 1-1., yearly energy consumption in California grew 1.3 percent, more or less mirroring California's population growth. The California ISO recorded that in its control area (roughly three-quarters of the State), "the number of days that demand exceeded 35,000 MW increased from 51 in 1998 to 84 in 2000."⁸ The rise in energy use, without a matching increase in generation plant construction, put a strain on California's existing electricity generation plants.⁹

3. **Increased Demand in Region:** California has traditionally been a net electricity importer for most hours of the day, importing more than 20 percent of its electricity. During the mid-1980s to early 1990s, California had access to ample energy imports because the southwestern states had an oversupply of electricity due to an overbuilt electricity supply system and slow growth rates. The Pacific Northwest had an abundant supply of hydropower as a result of high precipitation. In the mid-1990s, the oversupply situation began to change, and by 1999, California faced a radically different energy importing outlook. First, the region's population increased dramatically. As seen in Table 1-1., most western states' yearly population growth over the decade greatly overshadowed that of California, with Nevada having the highest growth rate in the country at 4.8 percent. Second, the economy of the western states grew, fed mainly by the high-tech industry and a westward migration. Arizona, Nevada and Oregon led the country in the 1990s with 7.3 percent, 7 percent and 6.8 percent economic growth, respectively.¹⁰ Between 1989 and 1999, yearly energy consumption for the region grew, ranging from 0.2 percent in Montana to 5.8 percent in Nevada. The regional growth absorbed the oversupply, and by 2000, electricity exports to California had fallen significantly. Between 1999 and 2000, California's "annual average net import levels declined by 28 percent."¹¹

7. Natural Resources Defense Council (NRDC) and Silicon Valley Manufacturers Group (SVMG), "Energy Efficiency Leadership in a Crisis: How California Is Winning," August 2001, p. 8.

8. The California ISO, "2001 Summer Assessment," p. 5.

9. "The CPUC and CEC, California's Energy Story: A Chronology 1976-2001," May 4, 2001, p. 75.

10. "Department of Commerce Ranks Western States as Top Economic Performers," *The Portland Business Journal*, June 5, 2001. Accessed at <http://portland.bizjournals.com/portland/stories/2001/06/04/daily14.html> on Oct. 11, 2002.

11. The California ISO, "2001 Summer Assessment," p. 6.

TABLE 1-1. Average Annual Growth/(Decline) % Rate in Western States, 1989 to 1999

	Electricity Use	Population	Use Per Capita
Nevada	5.8	4.8	1.0
Utah	3.9	2.2	1.6
Arizona	3.5	2.8	0.7
Colorado	3.0	2.2	0.8
Texas	2.8	1.8	1.0
Idaho	2.5	2.3	0.1
California	1.4	1.3	0.1
Washington	1.3	1.9	(0.6)
Oregon	1.3	1.7	(0.4)
Wyoming	0.5	0.5	0.0
Montana	0.2	1.0	(0.8)

Source: The CEC, 2001, "2002-2012 Electricity Outlook Report," Table II-1-4.

Without market forces pushing utility companies to pursue energy efficiency programs, funding for such programs dropped dramatically.

4. **Policy Changes Adversely Affect Energy Efficiency Programs:** California has had a history of energy efficiency and conservation programs since the 1970s. However, funding for and promotion of the programs have diminished in recent years. In the mid-1970s, with the oil embargo and OPEC's control of the petroleum market, gas and electricity prices skyrocketed. To quell customer complaints about soaring electricity bills, the California Public Utilities Commission (CPUC) ordered investor-owned utilities (IOUs) to create conservation programs. But early efforts in the late 1970s mostly involved utilities urging customers to reduce bills by turning off lighting and turning down thermostats.

In the early 1980s, conservation programs matured into utility demand-side programs, which, as defined by the Electric Power Research Institute, "described a broad range of programmatic efforts by utilities to shape total customer demand to better match system generating requirements and system costs."¹² Utilities could choose from four different demand-side programs aimed at reducing demand management:

- 1) Energy efficiency programs
- 2) Load management programs
- 3) Fuel substitution programs
- 4) Load building programs

Utilities spent most of the demand-side monies on energy efficiency management programs. During the early to mid-1980s, as energy prices remained high, demand-side management programs grew in popularity and utility spending on those programs increased.

The situation changed in 1985 when oil and gas prices began to drop. Market forces no longer pushed utility companies to pursue energy efficiency programs to keep prices down. By 1989, funding for such programs dropped below \$100 million from a high of \$230 million in 1984.¹³

In response to the loss of funding, a lack of interest in efficiency programs by utilities and a market transformation away from energy conservation, a coalition

12. The CEC, "The Energy Efficiency Public Goods Charge Report," P400-99-020, December 1999, p. 8.

13. Ibid.

The mixture of controlled retail and uncontrolled wholesale prices under deregulation led to bankruptcy fears for utilities.

of concerned government officials, utilities and public interest groups met and formed the California Collaborative in early 1990. Documented in "An Energy Efficiency Blueprint for California," the collaborative enabled utilities, government and ratepayers to work together to find a way to make energy efficiency worthwhile and profitable for utility companies.¹⁴ The CPUC approved of a plan that would pay utilities for every BTU or kilowatt-hour (kWh) saved. Under the plan, utilities could "collect ratepayer funds to buy what was now called conservation resources," and invest in energy efficiency instead of generation.¹⁵ The program made efficiency very profitable and therefore enticing to the utilities. Funding for the programs peaked in 1994 at \$500 million.

In 1996, however, funding for energy efficiency programs ended when the CPUC deregulated the energy industry and vanished completely with the restructured marketplace. Deregulation was designed to make the energy market truly competitive. The CPUC believed that a competitive market would not only naturally check energy prices, but it would also create energy efficiency incentive programs. While IOUs would be less inclined to greatly reduce prices to compete, they would be more willing to compete by creating rebate and incentive programs. Therefore, subsidies for energy efficiency programs would not be necessary and would eventually disappear altogether.

5. **Deregulation:** Beginning in September 1996 with the passing of Assembly Bill (AB) 1890, California's electricity market was deregulated. In an effort to protect smaller utility companies, AB 1890 promised lower rates for utility companies through an open market. The State believed that short-term or "spot market" contracts would prevent contract manipulations by energy suppliers to maintain unnaturally high prices. AB 1890 also created a retail price cap so that customers would not feel the effects of shifts in the wholesale electricity market.

Unfortunately, deregulation had adverse effects on the energy supply for California. Because deregulation did not tie suppliers into long-term contracts, and allowed power companies to sell electricity to whomever they chose, several power distributors, fearing lower profits in California due to the retail price cap, sold to other states. The immediate result was an artificial power shortage.

In addition to this power shortage, the mixture of controlled retail and uncontrolled wholesale prices led to bankruptcy fears for the utilities. In the spring of 2000, unseasonably hot temperatures led to a spike in demand for electricity to run air conditioners. At the same time, natural gas prices were rising. California relied on natural gas for almost half of its energy production.¹⁶ With demand high, suppliers began charging higher prices to California utilities. Wholesale energy prices grew astronomically. The California ISO, California's grid operator, reported that peak energy prices for November 2000 were up 52 percent from October 2000 and 275 percent from November 1999. Non-peak energy prices in November 2001 were up 63 percent from October 2000 and 434 percent from November 1999.¹⁷ In an uncontrolled market, a rise in price would usually curb demand, but the higher prices were not passed on to consumers because of Cali-

14. A&C Intercom, Association of California Water Agencies (ACWA), California Department of General Services, et al, "The Energy Efficiency Blueprint for California: The Report of the Statewide Collaborative Process," January 1990.

15. Ibid, p. 9.

16. The CEC, "California Energy Outlook: Electricity and Natural Gas Trends Report," September 2001, 200-01-002, p. 9.

17. Anjali Sheffrin, Director of Market Analysis, the California ISO, "Market Analysis Report Memorandum for November 2000," December 2000.

fornia's retail price cap, so consumers continued to demand energy during the hot spring and summer months.

From May 2000 to January 2001, California's two largest electricity distribution companies — Pacific Gas & Electric (PG&E) and Southern California Edison — recorded losses in excess of \$12 billion. With rapidly declining revenue, utility companies could not pay their bills, and suppliers refused to sell them electricity. PG&E was on the brink of insolvency by January 2001; it filed for bankruptcy in early April 2001.

6. **Drought Conditions:** Drought conditions reduce the volume of water available for generating hydroelectric power and increase electrical demand, as additional power is needed to pump groundwater for irrigation and similar projects. Snowpack in the Pacific Northwest and Sierras was measured at 61 percent of the normal level between 2000 and early 2001.¹⁸ The drought decreased the amount of hydroelectric power produced in the Sierras by 25 to 35 percent¹⁹ and drastically cut the amount of electricity that the Pacific Northwest could export to California.²⁰
7. **Shut Down of Power Plants:** Beginning in January 2001 and through the spring of 2001, several power companies shut down generation plants, citing reasons such as storm- and fuel-related problems, "excessive vibrations," mechanical failure, boiler/condenser leaks and necessary maintenance work in preparation for the summer. The CPUC and other organizations claimed that the plants were shut down to manipulate rates. Whatever the reason, California found itself in dire straits when some of the biggest plants were not online to produce energy at critical times.

To make things worse, the extensive use of peaking resources during the summer of 2000 had "resulted in several units reaching their maximum allowable emission limit,"²¹ which meant that the plants had to be shut down in the winter of 2000/01 and the spring of 2001. California has strict air quality standards that regulate nitrogen oxide emissions for all power plants and put limits on the number of annual operating hours of thermal generators. High loads, unplanned outages, low Qualifying Facilities (QF)²² production and reduced hydropower import levels in the summer of 2000 forced California to rely on in-state base load and gas-fired generators to meet demand. To prevent blackouts, these thermal plants dispatched peaking resources that in some cases reached or nearly reached the emission limit.

In 2001, several power companies shut down generation plants, citing reasons such as storm- and fuel-related problems, mechanical failure and maintenance work.

Energy Supply Projections

Shortage of supply can be solved three ways: increase supply, reduce demand and/or shift demand away from peak use times. In late 2000/early 2001, the State responded to energy problems during the summer and winter of 2000 through a variety of strategies, including

18. Miguel Bustillo and Nancy Vogel, "Facts From Low Sierra Snowpack Means Less Hydroelectric Power," *Los Angeles Times*, March 31, 2001.

19. Ibid.

20. North American Electric Reliability Council (NERC), "Special Summer 2001 Report," p. 3.

21. Kevin Graves/Loads and Resource Group, "CAISO 2001/02 Winter Assessment and Summer 2001 Post-Season Summary," the California ISO, October 8, 2001, p. ii.

22. Qualifying facilities (QFs) are an individual (or corporation) who owns and/or operates a generation facility, but is not primarily engaged in the generation or sale of electrical power. QFs are either renewable or cogeneration facilities that qualify to supply energy.

Every forecast predicted that California would have an energy shortage for the summer of 2001, with demand outpacing available resources.

executive orders to 1) increase supply through generation plant construction and 2) reduce demand from large energy consumers and state buildings. Efforts to reduce energy use in state buildings were also clearly laid out in several management memos issued to each state department. In September, Governor Davis signed Assembly Bill (AB) 970, which provided the first major infusion of funds for state conservation and efficiency programs. In addition, the governor formally requested that the California Attorney General investigate suspected manipulation in the wholesale electricity marketplace. By December, state agencies were ramping up a comprehensive outreach campaign to encourage Californians to conserve energy. In his January 2001 State of the State Address, Governor Davis unveiled plans for a \$250 million investment in energy conservation. The governor also proposed cash incentives for replacing inefficient refrigerators, clothes washers and air conditioners with more efficient models, as well as a comprehensive campaign to create energy-smart schools, homes, workplaces and communities. The State planned to have the new plants and programs in place and in effect by the summer of 2001 (for more information on the State's efforts, see chapters 2 and 3 in this report).

Despite these actions, beginning in early winter of 2000/01, organizations and state agencies began publishing reports projecting California's peak demand and available resources to meet energy demand during the summer months, the season with typically the highest electricity use. To estimate supply and demand, forecasters considered weather, economic conditions and household growth — factors that influence the use of air conditioners, a primary driver of summer peak demand. To estimate the resources, forecasters took into account operating reserve, emergency and peaking resources, and considered the projected results from new generation and demand-responsive programs rolled out in late 2000/early 2001.

Regardless, every forecast predicted that California would have an energy shortage for the summer of 2001, with demand outpacing available resources. Initial reports had faith that new generation, imports and limited demand responsiveness could cover the deficit, so early State energy conservation planning and programs were based on these optimistic reports. However, as the summer of 2001 approached and status reports came in on both the construction projects and below average precipitation in the north, forecasters began to predict increasingly larger energy shortfalls, culminating in the discovery of a deficit of nearly 5,000 MW. The conclusion now was that California had no choice but to create an effective energy conservation and efficiency campaign to cover the deficit.

■ **The CEC: *Summer of 2001 Forecasted Electricity Demand and Supplies*, published November 2000**

In November 2000, the CEC published its first forecast for the summer of 2001 (see Table 1-2. for partial data). The CEC based its demand forecast on the peak demand for the peak hours of the day during the summer (usually July) when electricity demand would be the highest.²³ As Table 1-2. illustrates, the CEC forecasted that peak demand for a 1-in-10 temperature year would be 53,104 MW and existing resources, including imports, would provide 52,189 MW of supply. Accordingly, California could expect to have a deficit of 915 MW with existing resources and imports alone. The CEC's import projections relied on the assumptions that, despite severe drought conditions, hydro-power from the Pacific Northwest would account for more than 3,000 MW of power. The CEC report predicted that by July 2001, additional generation from planned construction, as well as megawatts from demand-reduction programs, would provide more than enough megawatts (3,703 to 5,277) to cover the existing resource deficit. More-

23. The CEC provided data for four temperature scenarios: (1) a 1-in-2, or average temperature year, (2) a 1-in-5, or slightly above normal temperature year, (3) a 1-in-10, or hotter temperature scenario and (4) a 1-in-40, or hottest possible temperature scenario. In this report, only the 1-in-10 scenario is shown.

over, the report indicated that additional generation, without the help of the limited number of planned demand-responsive programs in November 2000 (600 MW), would produce enough megawatts to cover the energy shortage.

- **The CED and the Electricity Oversight Board:** *California Summer 2001 Forecasted Peak Demand — Resource Balance*, published in February 2001

In February 2001, the CEC and the Electricity Oversight Board published a second report based on more current information for the summer of 2001. The CEC forecasted greater demand for July (61,125 MW) and a significantly worse resource deficit (4,959 MW). (See Table 1-2.)

But, the CEC also predicted that new generation and demand-responsive programs would produce a surplus of energy.

Surprisingly, the CEC in February was more confident about electricity imports from the Pacific Northwest than the Commission had been in November 2000. The CEC claimed in the February report that imports would provide 5,109 MW of power, almost 1,100 MW more than the Commission had claimed in November. (The California Department of Water Resources, however, had not yet released its report on the winter and spring precipitation and reservoir levels for the Pacific Northwest.)

After calculating the total megawatts from all resources (available, imports and additional), the CEC estimated that California would need about 1,000 MW from demand-side programs to cover the energy deficit.

- **California ISO:** *CAISO 2001 Summer Assessment* published in March 2001

In March 2001, the California ISO, the operator of the State's electricity grid, released its summer of 2001 forecast.²⁴ Published just a month after the CEC report, the California ISO report began to highlight the limited resources of the Pacific Northwest because of drought and power plant construction delays. Based on available resources and peak demand, the California ISO predicted that California would be 6,333 MW short in July 2001. Unlike the CEC, the California ISO did not believe currently proposed generation or demand-response programs could cover the deficit. The California ISO provided data for each of the summer months, highlighting the limitation of additional resources in June and July. By September 2001, the California ISO predicted that 3,371 MW of new generation would be available, but only 390 MW and 2,593 MW for June and July, respectively.

Based on more current information, the California ISO report also disputed the CEC's prediction of the amount of QF power, (non-utility energy output associated with renewable or alternative resources) and hydropower that would be available from the Pacific Northwest. According to the California ISO, California had to implement at least 1,114 MW of additional conservation and efficiency programs to prevent blackouts.

- **North American Electric Reliability Council (NERC):** *2001 Summer Special Assessment*, published May 2001

In May 2001, two months after the California ISO report, NERC, a nonprofit research group, issued a more foreboding report than the California ISO report.

Central to the report was current information, some of which was not yet available to the CEC or the California ISO, on hydropower from the north, construction progress

***The CEC
forecasted a
greater demand
and a
significantly
worse deficit for
July 2001.***

24. The California ISO's report provided data for the highest electricity use day for June, July, August and September 2001, thereby forecasting for both peak and non-peak demand days of the summer. Only July is represented in Table 1-2. for consistency.

In April 2001, the California Department of Water Resources forecasted a 55 percent below average April-to-July water runoff.

for new generation, generation outages and QF construction progress/production. As Table 1-2. illustrates, NERC forecasted the same peak demand and maximum generation capacity as the California ISO report. However, NERC predicted significantly less new hydro and import generation megawatts and more capacity limitations (outages) than was forecasted by the California ISO. NERC concluded that California would “most likely experience supply deficiencies in the range of about 4,500 to 5,500 MW at the time of peak demand for each summer month” (2,000 to 4,000 MW more than the California ISO projections, depending on the month selected), and that California could expect involuntary curtailments of firm demand (rotating blackouts) to occur.”²⁵ Specifically, NERC estimated more than 700 hours of rolling blackouts.

NERC's forecasts were based on the following developments:

1. In April 2001, the California Department of Water Resources published a report forecasting a 55 percent below average April-to-July water runoff and greatly reduced reservoir levels. As a result, NERC predicted far less hydropower imports than the CEC or the California ISO.
2. With information on updated power plant construction and planning schedules, NERC forecasted no new generation for June, and only 1,500 MW by September. In fact, the CEC's final reports for 2001 stated that of the total number of power plant applications submitted (a potential 12,239.3 MW), only 5,803 MW of the applications were approved and only 2,004 MW of those were online by the end of 2001.²⁶
3. Although California experienced more generation offline for scheduled or unscheduled repairs than usual during the winter of 2000/01 — as high as 6,800 MW at times — the California ISO felt confident that recent maintenance on numerous plants would prevent future outages due to wear and tear. The California ISO only factored in 2,500 MW offline for each summer month, slightly more confident than the CEC's 3,050 MW offline prediction. However, NERC predicted 4,525 MW offline, stating that, “Although much maintenance was performed over the winter, some outages had to be delayed or prematurely ended to respond to system emergencies.” NERC also questioned whether the maintenance performed recently would significantly improve unit performance.”²⁷
4. NERC feared that QFs could not provide the previously projected megawatts because of emissions or financial limitations.²⁸ All generation plants had restrictions on the amount of emissions the plant could release into the air. Old generation plants, overworked in the previous summer and winter, were approaching the limit, or had gone over their emission limit. And in the past, QFs preferred to sell outside the state, fearing California utilities could not foot the bill.

It was clear from all these diverse reports that generation alone could not provide the necessary megawatts to prevent blackouts. The challenge facing the State was clear: enact conservation and efficiency programs to cover the possibility of a 5,000-MW deficit. Only by doing so, could the State avoid blackouts and fight the extreme energy prices.

25. NERC, “2001 Summer Special Assessment,” May 2001, p. 9.

26. http://www.energy.ca.gov/siting_cases/background.html.

27. NERC, “2001 Summer Special Assessment,” May 2001, p. 9.

28. NERC, “2001 Summer Special Assessment,” May 2001, p. 6.

TABLE 1-2. Comparison of 2001 Summer Peak Demand/Resource Forecasts (MW)

Forecaster and Temperature Conditions	CEC 11/00 Forecast for July, 1-in-10 Temp	CEC 2/01 Forecast for July, 1-in-10 Temp	California ISO 3/01 Forecast for July	NERC 5/01 Forecast for July	Actual July 2001 Supply and Demand
2001 Forecasted Peak Demand +7% Operating Reserve	53,104	61,125	50,303	50,303	40,412 or 37,144 ^a
Existing Generation	45,025	45,025	42,113	42,113	N/A
Expected Outages	2,500	3,050	2,500	4,525	5,044 mo. avg. ^b
Firm Net Imports	4,054	5,109	3,500	2,500	2,220 ^c
Other Resources* (Deficit)	5,610	9,075	857	(1,023)	N/A
Total Resources	52,189	56,159	43,970	39,065	N/A
Surplus/(Deficit)	(915)	(4,959)	(6,333)	(11,238)	N/A
Total Potential New Generation Additions	1,888 to 3,087	3,839	2,593	500	1,459 ^d
Total Additional Resources From Demand Programs, Mitigation Programs and Emergency Assistance	1,815 to 2,190	5,946	2,296	5,200	4,455 ^e
Total Additional Resources	3,703 to 5,277	9,785	4,889	5,700	5,914
Surplus/(Deficit) at Peak After Additional Resources and Mitigation	2,788 to 3,156	4,826	(1,144)	(5,538)	N/A

a. Load adjusted for growth and weather.

b. Compiled from California ISO data.

c. Greg Cook, the California ISO, Department of Market Analysis, "ISO Market Overview, Events of July 2002." Accessed online at www.caiso.com/docs/09003a6080/19/72/09003a60801972e2.pdf on Nov. 24, 2002.

d. CEC, "Emergency Conservation and Supply Response" Report #700-01-005F, December 2001. Accessed online at www.energy.ca.gov/reports/2001-12-19_700-01-005F.PDF on Nov. 24, 2002.

e. CEC, Monthly Peak Demand Reduction for July 2001. Accessed online at www.energy.ca.gov/electricity/peak_demand_reduction.html on Nov. 24, 2002.

Table 1-2. only provides 1-in-10 data for consistency.

* Other resources include LADWP Control Areas resources, dependable QFs, etc.

Since generation alone could not cover the energy deficit, California had to find a way to curtail demand.

Flex Your Power's Challenge in 2001

California could not afford to underestimate the energy shortfall. To ensure that California could make it through the summer of 2001 without an energy shortage or involuntary curtailment, Governor Davis ordered and the Legislature supported a comprehensive energy conservation and efficiency program to reduce at least 5,000 MW at peak. California did experience outages in January and March 2001. Those, as much as anything, spurred the State's efforts into high gear.



Chapter 2:

The State's Solution: Flex Your Power 2000 Through the Summer of 2001

Overview

Faced with sudden and huge increases in the wholesale price of power and a projected shortfall of 5,000 megawatts (MW) at peak in the summer of 2001, the State of California had to work quickly and aggressively to prevent a full-scale power crisis. As early as August 2000, the State undertook a broad range of actions to meet these challenges. In April 2001, Governor Gray Davis unveiled the specific goals of the State's three-part energy management program:¹

- **Generation/Supply Side** - To ensure reasonable power prices in the future, the State planned to:
 - Increase the supply of generation to exceed demand by 15 percent.
 - Increase generation capacity by 20,000 MW over the next three to four years. (Since April 1999, the Energy Commission had already approved 16 new major power plant projects. Ten were under construction; four were due to be completed in the summer of 2001 and four more in 2002. The State cut the time to site new power plants from two years to 21 days.)
 - Establish a public power authority to build more power plants. If the private sector fails to build all the plants that California needs, the State had to build them.
- **Stabilization/Restructuring Plans for the Power Industry** - To ensure reasonable power prices and the financial health of utility companies, the State planned to:
 - Purchase power for consumers that the utilities cannot generate; under this proposal, the utilities would resume purchasing power for consumers after 2002.
 - Allow PG&E, Southern California Edison (SCE) and San Diego Gas & Electric (SDG&E) to use some proceeds of the rate increase (after enactment of the dedicated rate component) to repay their creditors, subject to the following conditions. The utilities must:
 - Provide internally generated power (predominately hydro and nuclear) to consumers through 2010 at cost-based rates.
 - Dismiss all lawsuits seeking to pass on inflated power costs to consumers.
 - Sell transmission assets to the State of California at fair value.
 - Provide conservation easements on an estimated 100,000 acres of land.

In April 2001, Governor Gray Davis unveiled the specific goals of the State's three-part energy management program.

1. Governor Gray Davis, "State of California Meeting the Energy Challenge," Speech, April 5, 2001.

The California Independent System Operator issued 17 Stage 2 electrical emergencies throughout the summer of 2000.

- **Conservation/Demand-Side Management** - To increase energy efficiency and reward and encourage conservation, the State planned to:
 - Provide rebates for homeowners, consumers, businesses and agriculture for purchase of energy-efficient products. In the spring of 2001, Governor Davis proposed, and the CPUC approved, the 20/20 Program, which provided businesses and residents an incentive to save energy by directing the investor owned utilities to give a credit of 20 percent for all customers who cut energy use by 20 percent or more from the same month in 2000. This program ran for the four summer months of 2001; and for residents only, it ran again for four summer months in 2002.
 - Provide incentives for reducing energy demand among all California citizens.
 - Turn conservation into a habit among all residents through a statewide public education and media campaign.

Together, these actions resulted in the most aggressive, comprehensive and integrated energy conservation and efficiency effort in the history of the United States. Beginning in the summer of 2000, with the threat of impending blackouts during the winter of 2000/01 and the summer of 2001, Governor Davis named the Secretary of the State and Consumer Services Agency (SCSA), Aileen Adams, to head the State's conservation efforts, with the immediate task to focus on emergency efforts to reduce demand. The specific objective at this time was to take immediate, concrete actions in State buildings to provide the leadership and road map for businesses, local governments and residents statewide to follow. During this period, the State also drew up a comprehensive multifaceted campaign plan and recruited key organizations to participate in multiple initiatives to reach all Californians to drastically cut energy use.

In this report, Flex Your Power refers to this integrated campaign, which was coordinated by SCSA and directed by Walter McGuire of McGuire and Co., Inc., and included outreach efforts by numerous state agencies, field staff and thousands of business, nonprofit and local government partners. The outreach efforts were designed to work with the other components to immediately reduce California's peak demand in the summer of 2001 by 5,000 MW to prevent blackouts; reduce the cost of power for utilities and residents; and help make California energy self-sufficient by reducing overall energy needs through energy efficiency and permanent behavioral change.

The outreach campaign unfolded in three broad phases:

- Phase 1: Conservation (especially at peak) and Leadership
Summer 2000 to Spring 2001
- Phase 2: Partnerships and Momentum
Late Spring through Summer 2001
- Phase 3: Efficiency and Long-Term Behavior Change
Late Summer 2001 to Current

The remainder of this chapter describes the emergency response and the planning that went into the multi-sector initiative outreach of the Flex Your Power campaign.

Emergency Response in State Facilities

In June 2000, Governor Davis directed state buildings in the Bay Area to cut their electricity use and encouraged residents and businesses to do the same. This directive came none

too soon: Localized rolling blackouts in San Francisco on June 14, 2000 — as a result of an early summer heat wave; and the California Independent System Operator (California ISO) issuance of 17 Stage 2 electrical emergencies throughout the summer of 2000 added urgency to the need to take immediate action on the demand side.² On August 2, 2000, Governor Davis signed three executive orders designed to reduce energy consumption by the state government and speed up the application approval process for building new power generating facilities.

1. **Executive Order D-14-00** directed all California agencies involved in building new energy facilities to streamline the review process for siting new power plants without compromising environmental laws or public health and safety protections.
2. **Executive Order D-15-00** directed state agencies to take immediate emergency actions to reduce energy use during Stage 2 and Stage 3 alerts. Measures included reducing hot water temperatures to 105 degrees in state buildings, reducing overhead lighting by 50 percent and shutting down computer systems and other electrical appliances (such as photocopiers) during non-work hours. The order also directed the SCSA to coordinate a variety of programs to significantly reduce the state building load and encourage statewide conservation.
3. **Executive Order D-16-00** directed the SCSA to include sustainable building practices into plans for all new state building projects. The best practices included measures to improve the energy efficiency of lighting, windows and heating and cooling systems.

At the end of the summer of 2000, under the auspices of Executive Order D-15-00 and D-16-00, the State adopted the goal of reducing total peak electrical demand of state facilities 250 MW by June 1, 2001. To that end, the SCSA and the governor's office developed a "five-point plan" for state agencies. The plan focused on conservation, efficiency, education, training and partnerships:

1. **Energy Conservation:** Develop and implement conservation protocols to ensure that state employees are taking full advantage of every opportunity to conserve. Measures included: turning off lights, computers and monitors upon leaving a room at the end of the day; turning on power-saving features on all office equipment; and setting the thermostat to 68 degrees in the cold weather and 78 degrees in warm weather.
2. **Energy Efficiency:** Invest in energy-efficient appliances and practices and implement energy retrofit projects in state buildings. The goal was to retrofit 100 million square feet over the next two years.
3. **Education:** Develop an aggressive education campaign designed to teach state employees about the importance of conservation, both at work and at home; place

An executive order directed the State and the Consumer Services Agency to coordinate a variety of programs to significantly reduce state building load and encourage statewide conservation.

2. A Stage 1 is issued when operating reserves dip below seven percent. Consumers are asked to lessen the strain on the State's power grid by conserving electricity, especially during the afternoon hours. The California ISO can access emergency resources to help maintain operating reserves. A Stage 2 is declared when reserves drop below 5 percent. At this level, large commercial customers that have signed up to voluntarily curtail power during high demand days will be asked to do so, enabling the California ISO to access emergency resources to help maintain operating reserves. A Stage 3 is declared if an operating reserve shortfall of less than 1.5 percent is unavoidable. Involuntary curtailments of service to customer, including "rotating blackouts," are possible. California had never reached a Stage 3 energy emergency before December 2000, and had only had one Stage 2 energy emergency in 1999. In 2000, the ISO declared 36 Stage 2 energy emergencies and one Stage 3 emergency. During the first half of 2001, the ISO declared 70 Stage 1 energy emergencies, 65 Stage 2 energy emergencies and 38 Stage 3 energy emergencies.

According to utility information, state buildings reduced their electricity demand by 21 percent in January 2001 over January 2000.

conservation tips on websites, in newsletters, in the State's voicemail system and in every other form of communication.

4. **Training:** Train all facility managers and building engineers on conservation and efficiency measures. Hold facility staff accountable for building performance in order to ensure that state office buildings had to continue to conserve.
5. **Outreach/Partnerships:** Enter into many public/private partnerships to encourage conservation at every turn and communicate the message to millions of Californians.

In accordance with Order D-15-00 and the goals of the five-point plan, the Department of General Services (DGS) issued an energy management memo (MM 00-06) in August 2000 to all building managers in state facilities. The memo described in detail steps that should be taken in buildings during summer electrical emergencies, such as reducing lighting loads, adjusting thermostats and reducing the use of nonessential office equipment and appliances.

FIGURE 3-1. Management Memo 01-05

MANAGEMENT MEMO		NUMBER: 01-05
SUBJECT: COMPREHENSIVE ENERGY MANAGEMENT IN STATE FACILITIES DURING ELECTRICAL EMERGENCIES		DATE ISSUED: 04/19/01
REFERENCES: SUPERSEDES MANAGEMENT MEMOS 99-13, 00-06, 00-13 AND 01-01		EXPIRES: Until Superseded
ISSUING AGENCY: DEPARTMENT OF GENERAL SERVICES		
<p>This Management Memo supersedes and amends previous Management Memos on Energy Management to better reflect ongoing Stage 3 Electrical Emergencies.</p> <p>INTRODUCTION</p> <p>The State of California is facing an unprecedented period of electricity shortages.</p> <p>During periods in which electrical demand puts strains on the electric systems of the state's utilities, the California Independent System Operator (CAISO) may declare an Electrical Emergency. When the CAISO declares an Electrical Emergency, the Department of General Services/Office of Energy Assessments (DGS/OEA) will notify all departments, universities and community colleges and provide appropriate conservation information and actions to be taken as outlined in this DGS Management Memo. This Management Memo may be downloaded from the DGS Energy Website at www.dgs.ca.gov/energy.</p> <p>Notification will be sent from DGS Energy Info via E-mail/E-Pager and other means to the "Primary Contacts" (department's Energy Management Teams) identified and submitted by Departments to DGS/OEA. A department's "Primary Contact" list should include Directors, Chief Deputy Directors, Chief Information Officers, Communication Officers, other Technical Staff, Facility Managers, Plant Managers, Energy Managers, Cogeneration Operators, and Third Party Cogeneration Operators. This list is not necessarily inclusive and should include back-ups or other personnel based on an individual department's determination of how to alert and mobilize the staff within their own organization. "Primary Contacts" should in turn alert personnel under their responsibility as outlined/described in their internal Electrical Emergency Management Plan called for by Executive Order D-15-00. DGS Energy Info notifications may be confirmed at the DGS website www.dgs.ca.gov/energy.</p> <p>Electrical Emergency information received from other sources (CAISO, Office of Emergency Services, and local utility representatives) should be carefully examined. Information sent by DGS/OEA to departmental "Primary Contacts" should be forwarded in its entirety, without changes, to other staff within their department. If departments, by nature of their operations, need to take additional conservation measures above those outlined by DGS/OEA, that information should also be communicated.</p> <p>CAISO declarations can be made in progressive steps depending upon the amount of reserve generation available to the California electrical grid. Departments are required to comply, to the fullest extent possible, with all direction/instruction provided by DGS/OEA at each progressive stage of Electrical Emergency. CAISO Stages are as follows:</p>		

Between November 2000 and March 2001, the State had 61 Stage 1 emergencies and 35 Stage 3 emergencies. To combat renewed energy supply shortages, the DGS in December 2000 issued a new wintertime energy management memo (MM 00-13) that required state buildings to initiate winter emergency conservation measures, such as keeping interior air temperatures at 70 degrees or lower, in addition to the measures in MM 00-06. In January 2001 as the energy situation worsened, the DGS issued another energy management memo (MM 01-01) and identified more stringent conservation measures.

According to utility information, the buildings reduced their electricity demand by 21 percent in January 2001 over January 2000.

In April 2001, the DGS consolidated previous energy management memos into a single comprehensive memo (MM 01-05) that covered conservation actions for winter and summer months, including curtailment measures for Stages 2 and 3 electrical emergencies. Stage 1 actions became part of standard operations (actions to be taken at all times). Priority was given to those actions that could be taken statewide with minimal tenant impact.

Efficiency Funding: AB 970, SB 5X and AB 29X

On September 6, 2000, Governor Davis signed into law Assembly Bill 970 (AB 970) as a first step to reducing long-term demand. The legislation allocated \$50 million to the California Energy Commission (CEC) to implement the expansion and acceleration of: residential and commercial weatherization programs; programs to inspect and improve the operating efficiency of heating, ventilation and air-conditioning equipment in new and existing buildings; and programs to improve energy efficiency in new buildings. The legislation also directed the CEC to tighten energy efficiency standards of buildings and appliances.

By December, state agencies were ramping up a comprehensive outreach campaign to encourage Californians to conserve energy. In his January 2001 State of the State Address, the governor unveiled plans for a \$250 million investment in energy conservation, urging Californians to “flex the enormous clout we have as consumers. We are 34 million strong and the sixth largest economy in the world. By reducing our electricity demand – by even a small amount – we can reduce the price, avoid shortages and lower energy bills.” On February 1, 2001, Governor Davis outlined an \$800-million-plus energy conservation and efficiency program, including appliance rebates, incentives to reduce commercial lighting and a public media campaign. The \$800 million proposal, which would augment the \$50 million in existing energy conservation and efficiency programs funded by AB 970, was signed into law as Senate Bill 5X (SB 5X) and Assembly Bill 29X (AB 29X) on April 11, 2001.

Together, the bills set aside more than \$850 million to reduce demand and encourage conservation. SB 5X appropriated \$654.6 million, and AB 29X appropriated \$204.5 million to implement the following programs:³

CEC: The \$242.6 million to the CEC was earmarked for the following purposes:

- \$40 million for locally owned public utilities for energy efficiency, peak demand reduction and low- and moderate-income assistance measures. Priority placed on replacement of the oldest and least efficient appliances.
- \$35 million for programs to improve demand-responsiveness in heating, ventilation, air-conditioning, lighting, advanced metering of energy usage and other systems in buildings.
- \$30 million to implement a low-energy usage building materials program and other measures to lower urban air-conditioning usage in schools, colleges, universities, hospitals and other nonresidential buildings.
- \$50 million to implement a program for innovative peak demand reduction measures in the private sector and certain public sectors.
- \$70 million to implement programs to reduce peak load electricity usage, encourage bio-gas technologies, enhance conservation and encourage the use of alternative fuels (\$40 million was earmarked for high-efficiency electrical agricultural equipment).
- \$10 million in incentives for the retrofit of existing distributed generation owned and operated by municipal water districts to replace diesel and natural gas generation with cleaner technology that reduces oxides of nitrogen emissions.
- \$600,000 for four personnel-years to improve the ability of the CEC to provide timely and accurate assessments of electricity and natural gas markets.

The bills signed into law on April 11, 2001, set aside more than \$850 million to reduce demand and encourage conservation.

3. Sher, Bower and Burton, Public Energy Projects as Chaptered, April 12, 2001.

To avoid blackouts in 2001, Californians had to make immediate behavior changes, such as turning off their lights and using appliances after peak.

- \$7 million for a program to teach school children about energy efficiency in the home and at school – these funds would be transferred to SCSA via an inter-agency agreement.

Public Utilities Commission (PUC): The \$242 million for the PUC was designated to augment existing and develop new low-income and energy efficiency programs including:⁴

- Commercial Sector: \$23 million
 - \$13 million to increase funding for existing large utility commercial lighting programs.
 - \$10 million to Cities of San Francisco and Berkeley for innovative small commercial lighting pilot program.
 - \$500,000 for small and multi-jurisdictional utilities to develop commercial lighting programs.
- Industrial Sector: \$11 million to fund projects to help replace electric pumps and motors in the oil and gas pumping and pipeline industries.
- Residential Sector: \$198 million
 - \$100 million to increase CARE (California Alternative Rates for Energy) discounts for low-income customers of investor-owned utilities (IOUs).
 - \$20 million to augment utility low-income weatherization programs.
 - \$25 million to purchase efficient appliances for low-income customers.
 - \$38 million for moderate-income appliance and lighting rebates.
 - \$15 million for appliance recycling for residential customers.

Department of Consumer Affairs (DCA): The \$10 million allocated to the DCA was earmarked for a public awareness campaign to reduce peak electricity usage.

Department of General Services (DGS): The \$40 million allocated to the DGS was earmarked for increasing energy efficiency in state buildings.

Department of Community Services and Development (DCSD): The \$120 million allocated to the DCSD was earmarked for the Low-Income Home Energy Assistance Program.

Outreach Programs to Residents, Businesses, Local Governments and Agriculture

In order for the State to avoid blackouts in 2001, Californians had to take immediate conservation measures — behavior changes such as turning off their lights and using appliances after peak. As described in the earlier chapter, reports from the California ISO, the CEC and the National Energy Resources Council (NERC) published in March through May 2001 suggested that the State's new generation projects would not be online in time to produce adequate energy for the summer of 2001, despite the fact that the time to site new power plants had been cut from two years to 21 days. Furthermore, energy efficiency programs designed to promote the purchase of energy-efficient products and appliances — replacing the lights as opposed to just turning them off — could, at best, account for only

4. See the CPUC Report on SB X5 Expenditures for a more complete list.

several hundred megawatts at peak by the summer. Environmental Defense (a nonprofit organization that brings together experts in science, law and economics to tackle complex environmental issues) conducted research on energy use and efficiency and conservation and determined that not only was conservation the “fastest, cleanest and cheapest” way to solve California’s energy crisis, but that “conservation, a lot of it, was the only thing that will keep the lights on this summer in California.”⁵

In early February 2001, research from the consulting firm McKinsey & Co./EMC Inc. found startling results about Californians knowledge of conservation. A telephone survey of 800 California residents asked them to assess their perception of the energy crisis and of possible solutions. The survey found that:

- 67 percent named the energy crisis as the most important problem in the State.
- 98 percent said they were already conserving.
- 82 percent thought they had enough information about how to conserve.
- Only 56 percent thought conservation could get the State through the summer.
- Just under half believed there was nothing they could do to solve the energy problem.
- Only 8 percent thought peak conservation was important.
- Only 10 percent understood the concept of peak use.

To succeed, the campaign had to educate the public as to what measures they could take to conserve. Furthermore, nearly 60 percent were pessimistic that conservation could avoid blackouts. The campaign needed to provide hope that it was in the public’s power to get us through this challenge (hence, the empowering campaign logo and slogan, “Flex Your Power”). Most discouraging in the study was the finding that only 10 percent knew what “peak” was (when statewide use of electricity was at its highest level producing the greatest potential for forced outages). During winter months, electricity use typically peaked between 4 p.m. and 7 p.m. During summer months, statewide electricity use peaked during the mid- to late- afternoon hours, as a result of high air-conditioning use. In addition, summer months typically represented the highest statewide use of electricity compared with the rest of the year. The campaign had to teach and encourage people how to shift power use to off-peak hours.

In short, the results of the McKinsey & Co./EMC Inc. survey indicated that although Californians understood the severity of the crisis, they believed they were already doing as much as they could to help reduce demand and they knew how to conserve, despite every indication otherwise. In order to reduce energy use by as much as 5,000 MW, the campaign had to focus on conservation rather than efficiency, and push conservation at peak. The Flex Your Power campaign had to not only show the public that its efforts would be enough to prevent blackouts, but also educate Californians on effective conservation measures. This challenge was to be addressed through a comprehensive, statewide advertising, earned media campaign and 13 additional initiatives targeted at each sector of California. For complete details on each initiative, see Chapter 3.

Partnerships

The outreach component of the campaign involved developing tailored strategies to reach and educate the different sectors of California that used the most energy. The result was an effort to target the commercial, industrial, government, agriculture and residential

The outreach component of the campaign involved developing tailored strategies to reach and educate the different sectors of California that used the most energy.

5. Nancy Ryan, an economist at Environmental Defense, quoted in “Environmental Groups Call For Rapid Conservation,” Environmental Defense website, <http://www.environmentaldefense.org/article.cfm?contentid=125>, accessed on Oct. 4, 2002.

The campaign's short-term goal was to achieve a peak energy savings of 5,000 MW by the summer of 2001.

(“CIGAR”) sectors individually with specific measures to reduce consumption during the summer peak periods, focused on the highest energy use equipment from each sector.

TABLE 1-1. Equipment Energy Demand at Peak by Sector Percentage in California

Commercial 35.1%	Industrial 22%	Government 3.9%	Agriculture 5%	Residential 35%
Air Conditioning 13.5%	Assembly 12%	Air Conditioning 1.5%	Water Pumping 4%	Air Conditioning 14%
Lighting 9.9%	Transportation/ Communication 4%	Lighting 1.1%		Miscellaneous 6%
Miscellaneous 6.3%	Processing 4%	Miscellaneous 0.7%		Refrigerator 4%
Ventilation 2.7%	Mining/ Constructing 2%	Ventilation 0.3%		Cooking 3%
Refrigerators 1.8%		Refrigerators 0.2%		Clothes Dryer 2%
Office Equip 0.9%		Office Equip 0.1%		Dishwashing 1%

Source: Flex Your Power, based on CEC and CPUC data.

Note: Percentages represent projected peak use in the summer of 2001 by category and source.

After identifying the target audiences and the equipment with the most savings potential (Table 2-1), the Flex Your Power campaign placed field staff in five regions (Sacramento, San Francisco, Fresno, Los Angeles and San Diego), and tasked them to recruit partners in the commercial, local government, water, agricultural and residential sectors and to communicate with partners on a regular basis.

The campaign's short-term goal was to achieve a peak energy savings of 5,000 MW by the summer of 2001. The long-term goals were to foster behavior change and increased use of energy efficient equipment, appliances and lighting.

The Flex Your Power initiatives by sector (CIGAR) are listed below and described in detail in Chapter 3. They were rolled out on a schedule that was designed to build momentum and a sense that by working together we could succeed. This was reinforced through the press and paid media.

■ Commercial and Industrial Sectors

Flex Your Power designed initiatives to help reduce energy use by the business community, one of the State's largest consumers of energy. Together, the commercial and industrial sectors historically account for approximately 57 percent of the State's peak energy demand, primarily through the use of heating, ventilating and air-conditioning (HVAC) systems, assembly operations and lighting. For instance, there are more than 73,000 commercial office buildings in California that occupy more than 1.2 billion square feet. The CEC estimated that these commercial buildings alone accounted for approximately 3,400 MW of peak energy demand in the State.

Flex Your Power determined that if each business statewide was challenged to immediately undertake several simple measures to reduce energy use with a goal of cutting it by 20 percent, businesses could save fully half the projected energy shortfall. Simple conservation actions such as delamping 25 percent of non-essential and decorative lighting,

adjusting thermostats, etc. and changing operations and work patterns could save commercial office buildings alone, for example, between 600-1,800 MW. Facilitating retrofits and other efficiencies in commercial buildings could deliver significant long-term efficiency savings. To design, recruit participation and implement these measures, the campaign developed several initiatives:

- Commercial Buildings/BOMA/SEIU “Lights Out”
- CEO Business Leadership
- Small Business

■ Government Sector

State and local government account for approximately 3.9 percent of the State's peak energy demand, primarily through the use of air conditioning and lighting. There are 14,121 state government buildings larger than 500 square feet and more than 200,000 state government employees. And there are 58 counties, 475 cities and 3,000 special districts in California, operating thousands more government buildings and employing tens of thousands of people. Early on, the State determined that it must provide the leadership — it could not ask others to do what it did not itself do — and the benchmark — and cut energy use by at least 20 percent. Additionally, local governments and water agencies were challenged to cut an additional 15 percent (they had earlier been challenged to cut 7 percent). To accomplish these goals, Flex Your Power launched three more initiatives:

- State Leadership
- Energy Efficient Communities/Local Government
- Save Water — Save Energy

■ Agriculture Sector

Agriculture accounts for roughly 5 percent of total peak electricity demand in California, and 35 percent of total energy use. Flex Your Power estimated that most of the electrical energy use (70 percent) was for irrigation and occurred from April through August, which is also the most difficult time to conserve because it is during the growing season. Twenty-five percent of the electrical energy was used in food processing. If agriculture could implement energy conservation and efficiency actions, mostly by shifting peak load and making other changes such as using groundwater or shallow wells during peak and pumping deeper wells off-peak, significant savings were possible. This initiative included:

- Agriculture Action

■ Residential Sector

Energy use at home accounts for 35 percent of the State's peak energy demand. Because of the diversity of this sector, Flex Your Power had to design a variety of initiatives to reach as many residents as possible. Flex Your Power challenged residents to cut electricity use by 20 percent and launched a series of initiatives in addition to the overall paid and earned media campaign. These initiatives included:

- Energy Education in Schools
- Nonprofits/Community Based Organizations (NPOs/CBOs)
- “Light Brigade”
- Energy-Efficient Appliances, Lighting and Home Improvement Products
- Grocery Store Customer Awareness
- University/College Campus Outreach

Flex Your Power had to design a variety of initiatives to reach the California's diverse residential sector, which accounts for 35 percent of the State's peak energy demand.

The advertising campaign included simple messages executed through an integrated mix of TV, radio, print and outdoor advertisements.

Media and Advertising

Flex Your Power began a statewide paid advertising campaign, coordinated by the Director of DCA, Kathleen Hamilton, in February 2001. The ad campaign included simple messages executed through an integrated mix of TV, radio, print and outdoor advertisements targeted toward different demographic groups throughout California. The primary message of the Phase 1 effort was, "Conservation, it's not even hard." As the participants in the initiatives described in Chapter 3 were recruited and the initiatives announced, the message of energy-saving conservation tips, particularly at peak, remained the same, but the tagline shifted to, "Together we can get through this energy challenge." The simple messages of the media campaign followed the phase development of the outreach campaign, tying the entire conservation and efficiency education effort together.



Chapter 3:

Implementation of Flex Your Power Initiatives for 2001

Overview

This chapter describes each of the Flex Your Power initiatives in some detail. They appear in the order they were announced publicly through each of the three phases of the campaign in 2001. As mentioned earlier, Flex Your Power placed field staff in five regions (Sacramento, San Francisco, Fresno, Los Angeles and San Diego), and tasked them to recruit partners in the commercial, local government, water, agricultural and residential sectors and to communicate with partners on a regular basis.

The advertising campaign produced by Grey Worldwide and administered by the Department of Consumer Affairs (DCA) provided the constant “umbrella” for the many initiatives of the Flex Your Power campaign and the multiple programs of other state agencies and the utilities. The taglines of the ads best summarize the three phases of the campaign:

Phase 1

- Establish the Flex Your Power “brand” with its message empowering people to take action.
- Establish that there are easy, simple things that people can do.
- Establish a non-lecturing, personal vignette with a humorous tone (to succeed, the campaign had to be free from the “food fight” over how we got into the mess in the first place, whether generators were gouging the public, etc.), and the ads and entire campaign had to hammer away at:
 - Conservation and the simple things people can do to conserve (turn off the lights) rather than efficiency (buy efficient lighting).
 - Conservation at peak (use appliances after 7 p.m.).
 - Confront the perception that conservation would not be enough to make a difference.

It was during this first phase that the State’s highly successful effort to cut energy use more than 20 percent in state buildings (proving it can be done if we all help) was achieved. With the bar set high, the Flex Your Power campaign recruited businesses, nonprofits, local governments and others statewide to sign specific commitments to cut energy use immediately. The challenge to these sectors: Provide the leadership, take action and urge others to do the same. If you do, we can avoid blackouts. An example: Business leaders were persuaded that if all businesses in the State took a couple of painless steps (i.e., dim 25 percent of lighting and set room temperatures at 78 degrees F), the State could save up to 5,000 MW during the summer, the entire shortfall.

***A Flex Your Power challenge to the sectors:
Provide the leadership, take action and urge others to do the same. If you do, we can avoid blackouts.***

The governor's 20/20 program added a powerful reinforcing message and incentive to people and businesses to strive for the high energy-savings goal of 20 percent.

The tagline: “By [conservation tip: i.e., unplugging second refrigerator], you can help us through this energy challenge, and it’s not even hard.”

Phase 2

- Establish a high energy-savings goal (20 percent).
- Demonstrate a broad government, business, local government, nonprofit cooperative effort to get the State through the crisis.
- Build momentum — almost weekly announcements of new broad-based initiatives — and convince people.

The tagline: “Together we can get through this energy challenge and avoid blackouts.”

During this phase, the actual summer months, the governor’s “20/20 program” was under-way. The rebate program added a powerful reinforcing message and incentive to people and businesses to strive for the high goal of 20 percent savings. Those who achieved the goal — and thereby helped the State through the crisis — received a 20 percent credit on their utility bill.

Phase 3

The summer of 2001 was a remarkable one for the State of California: There were no blackouts and no Stage 2 emergencies after July 2, 2001, despite 80 Stage 1 emergencies and 37 Stage 3 emergencies between November 2000 and March 2001. By summer’s end, Flex Your Power was ready for the final, and in the long view, most important phase: locking in conservation behavior and turning the public’s attention to energy efficiency — purchasing energy-efficient appliances, equipment and lighting. The highly successful appliance promotion was launched in this phase.

The tagline: “Conservation, it’s a way of life.”

With this strategic context, the multiple initiatives of the campaign were as follows:

Phase 1 Announcements: Conservation at Peak and Leadership

Initiative #1: State Leadership

Governor Gray Davis unveiled the State Leadership Initiative in Los Angeles on April 27, 2001. State agencies accomplished much in each of the following five primary areas listed below. It was critical that the State establish a high conservation benchmark early in the campaign. This would be used to demonstrate that we could conserve our way out of a crisis if we all did the same things; and to demonstrate how it could be done. In addition, the State comes in contact with millions of people on a regular basis, therefore the message of conservation and the Flex Your Power “brand” had to become ubiquitous.

Energy Conservation

- **State Buildings:** State facilities followed aggressive energy conservation protocols stipulated in management memos (MM) 00-06, 00-13, 01-01 and 01-05. Protocols included reducing lighting loads; setting interior temperatures to 78 degrees F in the summer and 68 degrees F in the winter; and reducing the use of nonessential office equipment and appliances.

The Department of Water Resources (DWR) participated in the California Independent Systems Operator (California ISO) interruptible load program. When requested by the California ISO, the DWR interrupted up to 300 MW of pump load during peak hours, or almost 14 percent of its peak load, through March 31, 2001.

- **Communications:** Since the summer of 2000, state agencies such as the Office of Emergency Services (OES), State and Consumer Services Agency (SCSA) and the California Energy Commission (CEC) worked together to communicate up-to-the-minute information regarding energy emergencies to ensure that effective, rapid conservation actions took place when needed. For example, OES provided telecommunications “bridge calls,” through which state agency representatives could speak directly with each other and the California ISO to determine what actions were needed and when.
 - **E-mail Notification** — When a Stage 2 or Stage 3 energy emergency was declared by the California ISO, e-mail messages were sent from DGS Energy Info to more than 1,700 state government contacts (agency secretaries, department directors, chief deputy directors, chief information officers, building managers, energy managers, etc.). DGS did not need to send an e-mail when the California ISO declared a Warning or Stage 1 emergency, because Management Memo 01-05 had combined Stage 1 into Warning/Standard Operations. State agencies, therefore, should have been operating at this level on a daily basis.
 - **Dialogic** — Effective June 15, 2001, the DGS began using an automated out-bound phone system to place calls to each department’s “Primary Contacts” — the people who were called when a Stage 3 emergency was declared or cancelled. The primary contacts then alerted the personnel they oversee.
 - **Website Posting** — DGS Energy Info e-mail messages were posted to the DGS energy website at www.dgs.ca.gov/energy.
 - **Call Router** — Effective June 1, 2001, DGS implemented a 24-hour call router system whereby department personnel who did not have access to e-mail or the Internet could call for the latest information from the California ISO and utilities.

State facilities followed aggressive energy conservation protocols stipulated in a series of management memos.

Energy Efficiency

- **Retrofits of State Buildings:** Energy efficiency retrofits of hundreds of state facilities were pursued. The goal was to retrofit 100 million square feet of buildings between 2001 and 2003. As part of the retrofit process, the DGS undertook investment-grade energy audits in hundreds of facilities, installed demand response systems and established Stage 2 and Stage 3 load-shedding response plans. Even the governor’s residence was audited and retrofitted, cutting its utility bills nearly in half and saving taxpayers an estimated \$4,000 a year. A total of \$36.2 million was allocated, most of which would pay construction and materials costs for the state building retrofits, and Assembly Bill (AB) 970 funded an additional \$5.5 million administered through the CEC.

To implement the building retrofits, DGS developed hundreds of contracts with energy service companies and contractors and conducted hundreds of preliminary and investment-grade audits. Thus far, state agencies and universities have undertaken 431 retrofit projects. Of the 54 projects that have been completed through December 2002, the State has achieved almost 75 MW of peak-load reduction. By October 2004, projected peak-load savings from projects that are underway or completed is estimated to total 96 MW.

The retrofit projects occurred at state office buildings, community colleges, state prisons, California Youth Authority facilities and state hospitals. Although the retrofits var-

The strongest energy efficiency building standards in the country were developed, approved by the CEC and formally adopted by the California Building Standards Commission.

ied from facility to facility, depending on need, the most common funded retrofits included lighting and heating, ventilating and air conditioning (HVAC) systems and installation of building energy management systems. For example:

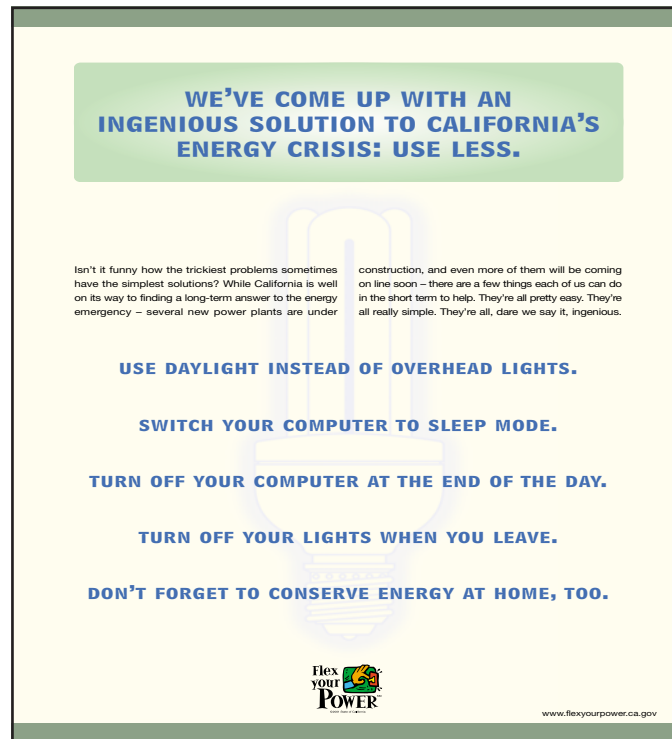
- **California Department of Corrections — Calipatria State Prison:** This project included lighting retrofit and new electronic ballasts; energy-efficient “exit” signs; a chilled water project; high-energy efficiency motors; HVAC fan and motor retrofits; variable frequency drive (VFD) motors for air handlers; a new thermal energy storage (TES) system with controls; and a new cooling tower and exhaust fans. The energy savings were estimated to result in peak demand reductions of 2,153 kW and annual savings of 9,318,464 kWh. Total cost estimate was \$5,118,181 with estimated annual savings of \$703,029.
 - **Department of Mental Health — Atascadero State Hospital:** This project included installation of a new absorption chiller, motor replacements, variable speed drives; and a new steam boiler stack economizer, including cooling tower treatment and steam traps. Total cost estimate was \$5,046,500 with estimated annual savings of \$661,115. The energy savings were estimated to result in peak demand reductions of 851 kW and annual savings of 5,407,075 kWh.
 - **DGS — Fresno State Office Building:** This project included lighting retrofits and new occupancy sensors; VFD motors and variable flow control pumps; and a new energy management system. Total cost estimate was \$488,442 with estimated annual savings of \$54,312. The energy savings were estimated to result in peak demand reductions of 74 kW and annual savings of 378,497 kWh.
-
- **Benchmarking:** To assess the operating efficiency of state buildings, the DGS gathered building performance data from a sample of major state buildings and provided the information to the ENERGY STAR® program. ENERGY STAR® “benchmarked” each of the buildings against a national sample of buildings and pointed to areas for potential improvement. Buildings that are ENERGY STAR® certified rank among the most efficient in the country. To date, nine major state buildings have been designated as ENERGY STAR® certified.
 - **Energy Efficiency Building Standards:** The strongest energy efficiency building standards in the country were developed and approved by the CEC in record time and formally adopted by the California Building Standards Commission. Among other things, the standards, which went into effect on June 1, 2001, increased the emphasis designers and builders must place on air conditioning and heating ducts, where wasteful leaks often occur, and reduced the amount of solar heat that radiates into a building through windows and the attic. The new standards were estimated to save 200 MW a year each year, and a total of 1,000 MW a year within five years of implementation.
 - **Sustainable Building Efforts:** The governor's Executive Order D-16-00 required state agencies to design, site, build and operate buildings that are energy, water and resource efficient. An interagency Sustainable Building Task Force, which included the primary environmental agencies, the DGS, Department of Transportation, Department of Corrections, Department of Finance and state universities and community colleges, developed a comprehensive blueprint for implementing the executive order. Major sustainable building design and construction projects included Capitol Area East End — the largest building project in the history of state government. The energy savings from this \$392 million, five-building complex were estimated to be \$400,000 a year.
 - **Other Efficiency Efforts:** State agencies also issued management memorandum requiring the procurement of energy-efficient IT and office equipment and included energy efficiency requirements as standard language in all new building leases and lease renewals.

Education and Outreach

■ Employee Outreach:

Since the summer of 2000, state agencies educated state employees about the energy situation and the need for conservation at the office and at home. Information was disseminated through building tenant meetings, management memoranda, memos from cabinet secretaries and department directors, e-mails and building posters. In addition, a number of large state office buildings hosted energy efficiency fairs and displayed 250 lobby signs, Kids Art Posters and 300 conservation posters. Flex Your Power worked with Legislative district offices and regional energy events to distribute thousands of residential and low-income brochures. All PDF-formatted campaign collateral was shared with state agencies and Legislative staff to facilitate their replicating and tailoring of the materials.

FIGURE 1. Office Poster



Each Cabinet agency used its thousands of daily contacts with citizens, businesses and others to spread information about energy conservation and efficiency.

- **State Agency Outreach:** Each Cabinet agency used its thousands of daily contacts with citizens, businesses and others to spread information about energy conservation and efficiency. State agencies worked as a team. Conference calls took place several times a week, ensuring that each agency and department used a unified message. Outreach strategies included:

- Placing the “Flex Your Power” logo and conservation messages on each state department’s website.
- Placing conservation messages in regular and special communications. For example:
 - The Technology, Trade and Commerce Agency (TTCA) e-mailed and broadcast faxed conservation tips to 97,000 businesses and business associations in California.
 - The Department of Motor Vehicles placed conservation messages on vehicle registration and license application and renewal notices, which reached more than 19 million vehicle owners and 8 million drivers who applied for or renew licenses.
 - The California Lottery Commission placed conservation messages on certain game tickets and on 7,000 TV monitors in stores statewide.

The State worked with the California State Association of Counties and the League of California Cities to coordinate local responses to energy emergencies.

-The Franchise Tax Board included conservation inserts in more than 1 million tax return information notices.

-Department of Alcoholic Beverage Control sent approximately 36,160 flyers with the energy message to liquor licensees in renewal notices and liquor license applications.

- Sending conservation information to every school superintendent, child care center and charter school and establishing a facilities best practices website within the Department of Education website.
- Distributing conservation handouts at state parks, forestry stations and state museums, such as the California Science Center, which has 1.3 million visitors each year.
- Placing articles about energy conservation in trade publications, newsletters and other professional media. These included the Employment Development Department's *California Employer* newsletter, which reached more than 900,000 subscribers, and the California Public Employees Retirement System's *PERSpectives*, which reached 1 million subscribers.

■ **State Liaison Efforts:** During the Flex Your Power campaign, State Leadership Initiative staff supported Legislative members by:

- Delivering official briefings on all campaign initiatives to each state agency public information officer (100), Legislative staff (120), Department of Consumer Affairs "800" consumer referral staff (15), the governor's Cabinet and department heads, as well as communication staff and constituent services staff and any department or ongoing energy task force that requested briefings.
- Sending weekly e-mails conveying conservation messages and new brochures and outreach materials to Legislative energy liaisons and state public information officers.
- Meeting regularly with and participating in energy planning and project meetings in an effort to promote collaboration between various stakeholders. Groups included the Office of Innovations, Business Transportation and Housing, TTCA, DGS, Power Authority, Legislative Oversight Working Group through the Assembly Speaker's Member Services, CEC, the California Public Utilities Commission (CPUC) and utilities.
- Training the governor's Constituent Services staff on statewide conservation resources and promoting collaboration (see Training below).
- Supporting more than 20 energy events planned by Legislative members. Twenty-two Legislative members participated in Flex Your Power's Appliance Awareness Week by issuing local press releases.

■ **Coordination with Other Governmental Entities, Private Businesses and Utilities:**

The Office of Planning and Research worked with the California State Association of Counties (CSAC) and League of California Cities (LCC) to coordinate local responses to energy emergencies. The California Department of Education (CDE) and the Office of the Secretary for Education (OSE) reached out to 8,300 schools with a letter to school superintendents on January 18, 2001. CDE also developed a best practices website for schools to use as a resource. The State reached out to the agriculture community and utilities such as Sacramento Municipal Utilities District (SMUD).

The governor's Office of Emergency Services, California Highway Patrol, TTCA and the SCSA collaborated with businesses and industry associations to reduce after-hours outdoor lighting at retail establishments by 50 percent, pursuant to an executive order. Industry association partners included:

- Building Owners and Managers Association (BOMA) of California
- California Business Roundtable
- California Chamber of Commerce
- California Grocers Association
- California Manufacturers and Technology Association
- California Retailers Association
- California Small Business Association

The State collaborated with businesses such as McDonald's, which placed energy conservation messages on 4 million tray liners in 1,100 restaurants, and Silicon Valley Manufacturers Group (SVMG), which distributed a series of e-mails with energy conservation information to thousands of high-tech employees throughout California.

Training

- **State Facilities Staff:** Since the summer of 2000, the DGS held bi-monthly and monthly training sessions for building facilities staff and building engineers to ensure that they were aware what conservation actions were expected and what techniques could be used to improve overall energy efficiency.

The Energy Management Division (EMD) of DGS devised a Strategic Plan for Peak Load Reduction (PLR), which served as a detailed action plan for maintenance staff and building occupants. The PLR Plan called for many of the same actions as those in the comprehensive energy management memo (MM 01-05) and further outlined specific tasks by type of equipment and by emergency stage. Development and implementation of the PLR Plan were funded by a \$1.25 million grant from the CEC. The plan was applied to 175 state-owned air conditioned buildings that were larger than 10,000 square feet.

The Energy Resources Specialist from EMD developed training materials, which included the management memo (reformatted for readability and laminated for usability) and the PLR Plan, which was provided in format and on a floppy disk for easy customizing and updating by facility personnel. A consulting company was hired to visit 175 state-owned buildings throughout California to help facility managers conduct site surveys; collect information on key contacts and on conservation projects being planned in each building; distribute training materials; and provide training to building and tenant managers on energy management and the actions in the PLR Plan. The site surveys began in March 2001, and surveys and trainings were completed by June 2001.

- **Legislative and State Agency Staff:** Statewide training sessions on the State's energy efficiency and conservation programs were held for Legislative members and their staff and state agency public information officers (PIOs) in June and July 2001. The training sessions were conducted in Sacramento, San Jose, San Diego, Anaheim, East Los Angeles, Oakland and Fresno. Flex Your Power State Leadership Initiative staff developed the agenda and material content, recruited speakers and facilitated each training. Nearly all members of the Legislature sent district staff, for a total of 120 attendees and 100 state agency PIO staff. Each member office and state department agency provided the name of an energy contact who would receive regular support through a variety of mediums, including e-mail updates and informational materials on conservation and efficiency programs and resources.

Training content covered all current programs and resources related to energy efficiency and conservation and low-income energy assistance programs administered by the State of California. Participating agencies included the CEC, Community Services and Development Department, CPUC, SCSA and Flex Your Power.

The State collaborated with businesses such as McDonald's, which placed energy conservation messages on 4 million tray liners in 1,100 restaurants.

Major state office buildings dropped electrical loads by about 40 percent each night; saved approximately 200 MW during Stage 2 emergencies; and reduced overall energy consumption by an average of 23 percent in the first six months of 2001.

Results

The State Leadership Initiative delivered incredible savings and provided a powerful and credible challenge to local government, businesses and residents.

Energy conservation measures and energy efficiency retrofits enabled major state office buildings to drop electrical loads by about 40 percent each night; save approximately 200 MW during Stage 2 emergencies; and reduce their overall energy consumption by an average of 23 percent in the first six months of 2001 when compared with the same period in 2000 (21 percent reduction in January and February, 18 percent in March, 26 percent in April, 23 percent in May and 26 percent in June). State buildings managed to save up to an estimated 40 percent of electrical use during winter peak-hour periods through emergency conservation measures and permanent changes in their operating patterns.

Retrofitting state buildings for permanent energy efficiency helped sustain those energy savings in future years while saving millions of dollars over the life of those buildings and the equipment installed.

The new building standards that went into effect on June 1, 2001, are saving an estimated 200 MW a year. In five years, the savings are expected to reach 1,000 MW a year — enough electricity to power an estimated 750,000 homes.

In 2002, major state buildings continued to use approximately 20 percent less energy than in 2000. These efforts resulted in \$9.2 million in saved energy costs for the State in major state buildings alone.

Phase 2 Announcements: Partnerships and Momentum

Initiative #2: Energy-Efficient Communities/ Local Government

Flex Your Power started collaborating with the League of California Cities (LCC) (representing 476 cities in the State) and the California State Association of Counties (CSAC) (representing 58 counties) to solicit the participation of their members in the campaign in January 2001. Governor Davis on January 30, 2001, sent a letter to the LCC and CSAC thanking them for their efforts to date in responding to the energy challenge. The governor also asked all cities and counties in California to increase their commitment to conservation and pledge to reduce electricity use by at least 10 percent in 2001, compared with 2000.

In the spring, Flex Your Power, the SCSA and the governor's office again collaborated with the LCC, CSAC and the California Special Districts Association (CSDA) (representing 2,300 special districts) to develop a joint letter and energy coordinator pledge. Flex Your Power assumed that a significant number of local governments would make even greater efforts to conserve energy if: they committed to applying their significant power toward accomplishing specific energy efficiency and conservation goals; and worked in concert with the State and other local governments to leverage their messages and resources. The Energy Efficient Communities/Local Government Initiative outlined a program to promote energy efficiency and conservation at the local level. By committing to this pledge, local governments would agree to, among other measures:

- ✓ Cut energy use by 15 percent.

A key function of the Flex Your Power campaign was identifying and sharing policy tools and programs undertaken by local governments that can be replicated to save energy.

Flex Your Power again followed up the mailings with phone calls to assess the needs of each local government entity, walk the energy coordinators through the worksheet materials in the packet and inform them of incentive and technical assistance programs offered by the CEC, utility companies and other state agencies. Programs targeted at local governments included:

- 20/20 Rebate Program
- Energy-Efficient Financing Programs
- Innovative Peak Load Reduction Program (Bring Me a Watt)
- Bright Schools Program
- Energy Partnership Program

FIGURE 3. Local Government Local Area Work Plan

VI. YOUR COMMUNITY'S LOCAL AREA WORKPLAN

Your Flex Your Power Campaign consultant: _____
 Phone: _____ Fax: _____
 Email: _____

Community Profile

Name of city/county/special district: _____
 Population of your city/county/special district: _____
 Number of employees at your city/county/special district facilities: _____
 Number of buildings (larger than 5000 square feet) owned by your city/county/special district: _____
 Square footage of those buildings: _____

Implementation Checklist

Energy Coordinator appointed? ☐ Yes ☐ No Date: _____

Have you benchmarked local government buildings with EnergyStar? ☐ Yes ☐ No

How many buildings have you rated so far? _____
 How many do you plan to rate? _____

Has your community signed on to the state's emergency notification system? ☐ Yes ☐ No

Has your community developed a conservation and blackout contingency plan (potentially including measures outlined in the attached State Management memo)? ☐ Yes ☐ No

Does your community have an energy-related Community Assistance Plan for at-risk populations? ☐ Yes ☐ No

Does your community have a Comprehensive Energy Plan? ☐ Yes ☐ No

Does your city/county/special district plan to hold an energy fair? ☐ Yes ☐ No Date: _____

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A key function of the Flex Your Power campaign was contacting energy coordinators on a regular basis through e-mail and phone to answer questions on energy conservation and efficiency. Flex Your Power identified and shared policy tools and programs undertaken by local governments that can be replicated to save energy. The following are examples of such policies:

- Retrofit-upon-sale ordinances, which require existing buildings to meet higher standards for energy efficiency upon resale. Energy efficiency standards for construction, which require tighter building shells and high efficiency fixtures in new buildings.
- Energy-efficient landscaping standards that mitigate heating and cooling needs and include requirements such as planting vegetation around construction, using light colors on roofs and narrowing residential streets.
- Renewable Portfolio Standards that require renewable and alternative energy sources and provide a certain percentage of all energy delivered to a municipality.
- Audits and on-site surveys, including the installation of efficient devices and assistance with energy monitoring, that encourage low-cost energy conservation by offering home and business energy auditing and consultation in conjunction with retrofitting services.
- Energy efficiency programs through schools and community-based organizations (CBOs), as well as distribution of free weatherization and conservation kits.

- Maintenance and design of energy-efficient parks, outdoor recreation areas and public spaces, which reduce the summer cooling load, winter heating loads and long-term energy demand.
- Energy efficiency programs in government buildings, including use reduction targets, retrofitting and green building guidelines.
- Employee education and training on energy efficiency.
- Load management programs that help cities cope with power demands by reorganizing when energy is used, particularly at peak.
- Rebates for new construction, which encourage and reward builders if initial retrofits result in an overall reduction of building energy use.
- Low-interest loans and mortgages for energy-efficient retrofits for the installation of efficiency equipment in homes and businesses.
- Recognition programs that acknowledge participants' commitment to the program, their results, technological breakthroughs and continuous improvements.
- Grants/rewards for energy efficiency projects and for energy-efficient design that go beyond the "common practice."
- Comprehensive websites that provide support to load and demand-side management programs and links to relevant URLs.
- Public/private partnerships that develop, test and bring to market environmentally sensitive designs or projects
- Public/nongovernmental organization partnerships that host energy town meetings with nongovernmental organization (NGOs) and CBOs to encourage citizen involvement in the local energy conservation effort.

Flex Your Power participated in bi-weekly Local Government Partnership meetings throughout 2001 to keep abreast of all activities, with an emphasis on energy-efficient communities.

As the Local Government Initiative team made contact with potential and established energy coordinators, the team noticed that many energy coordinators needed additional information, tools, resources and questions answered before they could move to the next level of implementation. To meet this need, Flex Your Power in August began working with LCC, CSAC, CSDA and OPR to develop a series of local government trainings for energy coordinators. Flex Your Power planned to model the trainings after those developed for Legislative staff in July under the State Leadership Initiative. Between September 17 and 21, 2001, Flex Your Power hosted a series of three-hour trainings in each region, providing local government energy coordinators with information on the campaign components and the tools and resources they would need to get their efficiency and conservation efforts off the ground.

Flex Your Power participated in bi-weekly Local Government Partnership meetings coordinated by the Governor's Office of Planning and Research (OPR) throughout 2001 to keep abreast of all activities, with an emphasis on energy-efficient communities. The meetings, which began in May 2001, were organized by the governor's office and attended by representatives from the Department of Health Services, Department of Aging, SCSA, DGS, LCC, CSAC, CSDA, CEC and CPUC. The meetings provided a wide range of local government groups with an opportunity to talk strategically about how local governments could be more coordinated in their energy efficiency efforts and how programs were proceeding.

In the summer and throughout the year, Flex Your Power attended the statewide conferences of the LCC, CSAC and CSDA. There, Flex Your Power coordinated with the CEC to set up an informational booth and distribute energy conservation materials. Flex Your Power also directed local governments that were interested in holding energy fairs to call the campaign office to discuss ways in which the campaign could help them.

More than 85 percent of the cities and 90 percent of the counties in California agreed to be partners of Flex Your Power.

As stipulated in the initiative, both Flex Your Power and local government partners were committed to public outreach and education efforts in several ways:

- **Community Assistance Planning:** Local governments developed and coordinated a plan of action with CBOs (e.g., Aging, Meals on Wheels, churches), fire and police departments and others to assist the elderly and other at-risk populations and vulnerable small businesses in the event of blackouts.
- **“Light Brigade” Initiative:** In May, local government leaders participated in the Flex Your Power “Light Brigade” Initiative, organized by the California Conservation Corps (CCC). Each week, Flex Your Power sent a list of cities/neighborhoods that the CCC was planning to walk through to the three local government associations. The associations posted the information on their websites to give cities/counties/special districts “advance warning.” This also gave City Managers and elected officials an opportunity to join the “Light Brigade.”
- **Collateral:** Flex Your Power provided local governments with thousands of residential and low-income brochures in English and Spanish, lobby signs and kids posters. Flex Your Power also distributed materials at energy fairs and at presentations with local government staff.
- **“Save Energy Pledge”:** In addition to asking local governments to make a 15 percent energy-use reduction, Flex Your Power distributed an individual “Save Energy Pledge” to energy coordinators, asking them and their co-workers to pledge to do their best to cut their energy use by 20 percent at home.

FIGURE 4. Local Government Save Energy Pledge


SAVE ENERGY PLEDGE

I pledge to do my best to use 20% less electricity, and urge others to do so, by:

- 1) Turning off lights and appliances that are not essential;
- 2) Setting thermostats to 78 degrees or higher during warm weather and during cold weather, to 68 degrees or lower;
- 3) When shopping for lights and appliances, purchasing efficient ones (ENERGY STAR®) that use the least energy;
- 4) Delaying use of clothes dryers and other large appliances until after 7 PM.

Name _____ City _____ Zip code _____

Please cut, fill out and mail this pledge to:
Flex Your Power, 901 P Street, Suite 145, Sacramento, CA 95814
Or visit our website at www.flexyourpower.ca.gov to fill out a “Save Energy Pledge”.



Besides working directly with local governments and their primary associations, Flex Your Power also reached out to the California Council of Governments (CalCOG) and the five primary regional government associations for their assistance in distributing Flex Your Power information to their members. Flex Your Power made presentations to CalCOG and the primary regional government associations to inform them about Flex Your Power’s efforts and how the regional governments could get involved. Flex Your Power developed and presented a slide-show overview of the campaign at regularly-scheduled COG meetings. Flex Your Power found that working with the COGs to reach local governments was an excellent alternative to calling the cities, counties or special districts directly.

Results

The Energy Efficient Communities/Local Government Initiative was extremely successful in signing on cities, counties and special districts as partners in energy conservation and efficiency. More than 85 percent of the cities and 90 percent of the counties in California worked with Flex Your Power.

Of the top 100 cities by population, 97 signed the pledge and/or identified an energy coordinator for the summer of 2001. Those 100 cities represented a population of more than 19 million Californians. Of the top 40 counties by population, 37 signed the pledge and/or identified an energy coordinator. Fifty-four of the 58 counties in the State signed the pledge and/or identified an energy coordinator. The 54 counties represented a population of more than 33.5 million Californians. Over the course of the campaign, Flex Your Power worked with a total of 565 local government energy coordinators.

With Flex Your Power's help in developing and distributing collateral, many local governments were able to launch public education and awareness campaigns. These communities distributed thousands of residential and low-income brochures in English and Spanish, as well as displayed lobby signs and kids posters.

Flex Your Power's regular communication with energy coordinators about the many different energy conservation and efficiency policy tools and programs nationwide and about rebate, grant and loan programs offered by the CEC, CPUC and utility companies made it possible for hundreds of local governments to implement a variety of energy efficiency and conservation programs. Flex Your Power e-mail updates elicited a lot of "thank you" responses from energy coordinators and refreshed their memory about Flex Your Power as a resource for energy information. Many local governments had great success implementing energy conservation and efficiency measures suggested by Flex Your Power. Many shared their stories. For example:

- **City of Asuza**, which has a population of 43,800, saved \$12,700 in energy costs, and made 5.25 to 7.15 MW available for energy reductions should it be called upon to reduce load. The city accomplished this through city employee outreach and load-reduction programs in city facilities.
- **City of Paramount**, which has a population of 55,266, upgraded an HVAC system in City Hall and implemented lighting retrofits. The city reduced energy use 23.1 percent in three facilities in a five-month period and received a rebate from Southern California Edison (SCE) as part of the State's 20/20 program.
- **City of Poway**, which has a population of 48,000, retrofit traffic lights with light emitting diodes (LEDs). Poway realized a 71 percent energy cost reduction.
- **City of Laguna Niguel**, which has a population of 71,000, implemented a public information campaign that added city seals to Flex Your Power collateral. This and other programs helped Laguna Niguel reduce energy use 60 percent.
- **City of Vacaville**, which has a population of 89,000, included public service announcements, mayoral proclamations and conservation memos in employee paychecks. These public outreach efforts helped Vacaville realize more than 20 percent energy savings.
- **County of San Bernardino**, which has a population of 1,709,434, converted unused spaces into "cool centers" to help ease the summer heat for the county's low-income, disabled and senior-citizen populations. This project, coupled with a public education campaign and energy efficiency upgrades of city lighting and water systems, helped San Bernardino reach its 10 percent goal.
- **City and County of San Francisco**, which has a population of 776,733, in partnership with the CPUC, implemented 13 efficiency projects that were estimated to conserve 60 MW annually and as much as \$5 million a year in avoided energy costs.

Initiative #3: BOMA/SEIU Partnership: "Lights Out"

As part of the effort to reduce demand in the State's commercial office space, Governor Davis in early 2001 sent a letter to the Service Employees International Union (SEIU) jan-

Local government success stories include the City of Paramount, which reduced energy use 23.1 percent in three facilities in a five-month period and received a 20/20 rebate by upgrading an HVAC system and implementing lighting retrofits.

At a press conference, BOMA publicly committed the first 300 million square feet of commercial office space to the “Lights Out” Initiative.

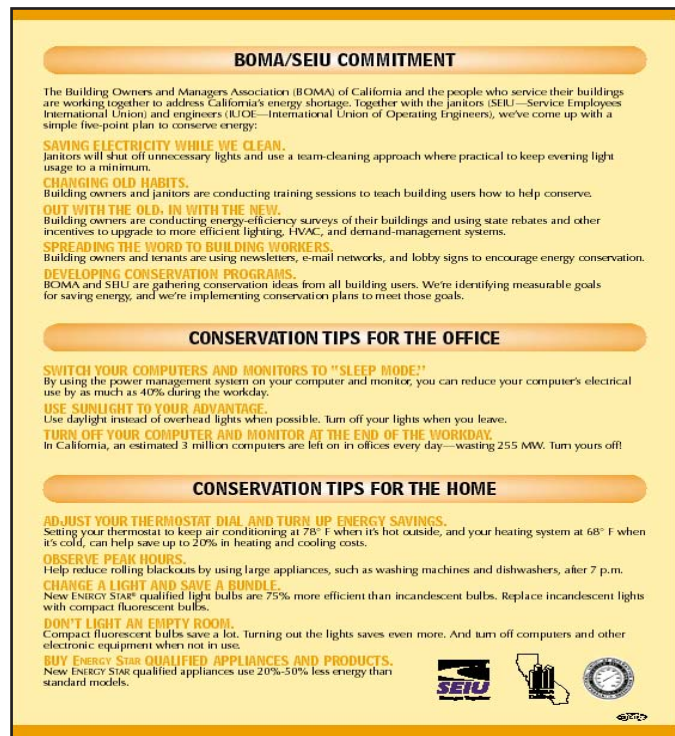
itors, the operating engineers and the Building Owners and Managers Association of California (BOMA), asking them to work together to save energy.

Flex Your Power proposed that the State, SEIU janitors, operating engineers and BOMA develop a joint, statewide energy conservation and efficiency program for commercial real estate. Together, the SEIU and BOMA service more than 500 million square feet of commercial office space and manage 2 million to 3 million workers. The result was a “five-point” program, “Lights Out,” designed to promote the immediate reduction of energy use in office buildings and to educate employees and visitors to the buildings. “Lights Out” asked the partners to commit to five main actions:

- ✓ Implement energy-efficient cleaning practices, including training and empowering janitors to shut off unnecessary lights and equipment and using a team cleaning approach that keeps the lights off in the rest of the building.
- ✓ Conduct conservation training of building users. Building owners and tenants had to support the development of training sessions on conservation for building operators and tenants.
- ✓ Develop conservation programs. Building owners and tenants had to gather input on conservation from all building owners and operators, determine measurable energy-saving goals and implement building conservation strategies.
- ✓ Retrofit buildings for energy efficiency. Building owners had to use rebates and other available incentives to invest in energy-efficient lighting, HVAC and demand management systems.
- ✓ Disseminate conservation and efficiency information to building workers. Building owners and tenants had to use newsletters, e-mail networks, lobby signs and other opportunities to raise awareness about energy conservation among those working in the building to encourage conservation at home and the office.

The janitors would also act as energy conservation “crusaders,” shutting off unnecessary lighting and equipment and reporting those areas where conservation was lacking.

FIGURE 5. BOMA Brochure



Flex Your Power announced the Lights Out Initiative at a press conference on May 7, 2001, with the governor, building managers and janitors. At the conference, the governor announced the five-point plan and BOMA publicly committed the first 300 million square feet to the initiative.

BOMA facilitated Flex Your Power's effort to identify building managers and janitors around the State to serve as energy coordinators to the campaign, provided rebate information in English and Spanish, disseminated Flex Your Power energy education materials to tenants and trained building workers. Fifteen hundred posters and lobby signs and 100,000 brochures were distributed. On June 1, 2001, BOMA sponsored the Commercial Real Estate Forum and Exhibition at which the newest energy-efficient products and services for buildings were unveiled.

Throughout the summer of 2001, Flex Your Power conducted telephone surveys of BOMA members to confirm that they were implementing the Lights Out program. The surveys accomplished three goals:

- Gathered information on the building's adherence to the pledge and encouraged the building manager to continue and/or begin conservation measures.
- Enabled Flex Your Power staff to provide valuable energy conservation and efficiency information and/or resources on where to look for information on rebates, incentives, conservation and efficiency.
- Collected anecdotes of success stories of various office buildings, which were used in earned media efforts (e.g., weekend press briefings), shared between building managers and circulated in BOMA newsletters. Companies that shared their stories included PM Reality, Boston Properties, Steps Down Real Estate and Arden Reality.

Flex Your Power also monitored the progress and measured the success of the "Lights Out" Initiative by faxing building managers and owners a survey about their energy conservation and efficiency programs. The survey also had space for the building representatives to order additional collateral materials.

Results

Flex Your Power's BOMA/SEIU "Lights Out" Initiative delivered impressive results. During the summer of 2001, 27 percent of the State's businesses cut at least 20 percent of their energy consumption, with some businesses cutting energy use in excess of 40 percent when compared with the prior year. This information is taken from the results reported by the IOUs as part of the State's 20/20 program whereby businesses saving 20 percent or more received a 20 percent credit on their utility bill.

Other successes include:

- More than 800 commercial office buildings implemented the "Lights Out" five-point program.
- Flex Your Power placed 1,500 posters in building lobbies and corridors and distributed hundreds of thousands of Flex Your Power conservation brochures.

And although many businesses and building management companies had been practicing energy conservation for years, Flex Your Power's extensive marketing of the many rebate, grant and loan programs offered by the CEC and utilities helped businesses increase efficiencies in their buildings. Success stories include:

During the summer of 2001, 27 percent of the State's businesses cut at least 20 percent of their energy consumption.

Flex Your Power collaborated with business organizations and CEOs to develop a declaration under which businesses would commit to conservation goals and a course of action to achieve them.

- **Chevron Real Estate Services** in San Francisco had been practicing energy-saving measures since 1991 (saving 50 percent on energy consumption), yet the company integrated many best practice measures recommended by Flex Your Power. Those included retrofitting 25,000 light bulbs and turning off hallway lighting during business hours.
- **PM Realty** in San Diego took advantage of Flex Your Power's suggestion to reduce energy costs by educating tenants and employees to be energy aware and efficient; changing cleaning procedures; retrofitting lighting; and resetting timers to minimize lighting usage during the day. PM Realty saved 27 percent in energy costs.
- **Thomas Properties Group** in Sacramento initiated a new janitorial cleaning program for its building. Previously, janitors cleaned from 6 p.m. to 2 a.m. with 13 floors fully lit. Under a new cleaning and lighting program, janitors started work at 11:30 a.m., often using only core lighting. The program saved Thomas Properties \$100,000 (9 percent) annually.
- **The Delano Regional Medical Center** in Delano took part in a lighting audit and delamped outside lighting bulbs, called for "lights out" in hospital corridors that do not have patients and asked security guards to check thermostat settings on rounds. The medical center saved more than 40 percent in energy costs in 2001.

Initiative #4: CEO Business Leadership

Flex Your Power, the Chamber of Commerce, the California Business Roundtable, Silicon Valley Manufacturers Group (SVMG) and CEOs from companies such as Shorenstein Company, Bank of America and Charles Schwab developed and endorsed the idea to approach CEOs of major businesses to make a commitment to conserve energy. The CEOs or top executives were targeted because they could make immediate and significant decisions to conserve energy and commitments to energy efficiency.

The goals of the CEO Business Leadership initiative were to:

- Obtain commitments from hundreds of major business organizations and companies to make systemic reform that would change work habits and environment immediately,
- Have the companies name an energy conservation/efficiency coordinator to implement energy-savings measures and work with Flex Your Power, and
- Distribute Flex Your Power lobby signs, posters and brochures.

Flex Your Power, in coordination with the above mentioned business organizations and CEOs, developed a joint pledge, or declaration, under which businesses would commit to conservation goals and a course of action to achieve them. Among other commitments, the declaration committed CEOs to: “Achieve collectively an overall 20 percent reduction in energy use as compared to the same period last summer. Such conservation will focus on office and commercial operations and with an effort to optimize efficiency in industrial processes, to the extent possible, by taking some or all of the following steps:”

FIGURE 6. Lobby Sign



The kick-off event for the CEO Business Leadership Initiative announced the support of more than 200 business leaders.

- ✓ Set temperatures for occupied space to no cooler than approximately 78 degrees F during normal hours of operation during the months of May through October.
- ✓ Immediately reduce lighting levels by 25 percent as an initial step and further reduce lighting levels by an additional 25 percent upon the declaration of a Stage 2 energy shortage emergency.
- ✓ Close blinds and shades in situations where windows contribute to indoor temperatures and where outside light is not required.
- ✓ Turn off and unplug all office, kitchen and other equipment when not actively in use.
- ✓ Consider without prejudice and apply as appropriate those additional measures detailed in the list attached to this declaration.

Flex Your Power began an initial outreach to CEOs in early 2001 to gain the support of prominent California businesses and business organizations for conservation and the initiative, with the ultimate goal of showcasing the signees, their commitment to action and the potential energy savings in an event in early June 2001. Flex Your Power staff directly contacted hundreds of CEOs and other top executives of major businesses asking them to sign the pledge, make a commitment to cut energy consumption and incorporate energy efficiency into their buildings. Flex Your Power also directly contacted business organizations and Chambers of Commerce to request their participation in the effort.

The official announcement of the CEO Declaration of Action took place June 7, 2001, at the Bank of America building in San Francisco, at which Flex Your Power unveiled to the

Flex Your Power broadened the participation of companies in the CEO Business Leadership Initiative by asking them to appoint energy coordinators, not necessarily CEOs.

press the names of the participating business organizations. The kick-off event announced the support of 62 business organization partners and 162 CEO partners.

Beginning on June 8, 2001, Flex Your Power began calling anew to CEOs of businesses across the State to ask if they would participate in the initiative. Flex Your Power sent a package of educational materials and asked the CEO contacts to distribute lobby signs and conservation brochures. Flex Your Power made information on the business initiative available on the campaign website, including the Declaration of Action pledge commitments, a PDF link to the form for businesses to sign and a long list of companies and business organizations that had already signed. The web address (www.flexyourpower.ca.gov) was broadcast on all written, radio and TV promotional spots.

FIGURE 7. CEO Declaration of Action

**ENERGY CONSERVATION
DECLARATION OF ACTION**
- Signature Response Form -
Fax to: (415) 981-6408

I support and will sign the Energy Conservation Declaration of Action and hereby authorize:

☐ YES ☐ NO My name to be listed as a signer and my signature to be affixed on the official Energy Conservation Declaration of Action.

☐ YES ☐ NO My name to be listed as a signer of the Energy Conservation Declaration of Action in print media advertising to encourage other companies to adopt the same actions.

Please print information below and sign in the signature box. If you are willing to send an electronic file of your signature for this purpose only, please email the file to aobrien@bayareacouncil.org.
Information: Jon Jenni, San Francisco Partnership, 415-364-1795; Sunne Wright McPeak, Bay Area Council, 415-981-6600.

Name _____ Number of Employees _____
Title _____ Number of Locations _____
Company _____ Telephone _____
Address _____ Fax _____
City _____ State _____ Zip _____ Email _____

Signature Box - Please provide a reproducible signature in pen in the center of the box.

Please sign as soon as possible. The public announcement is targeted for Thursday, June 7, 2001.

By mid to late summer of 2001, because the energy crisis received less media attention and appeared to be under control, the business community's response to the initiative slowed even though energy conservation was still critical. To combat this, Flex Your Power developed new strategies. To demonstrate to businesses that the state government supported the CEO Business Leadership Initiative, Flex Your Power developed a call-to-action letter, signed by three cabinet secretaries; Aileen Adams, Secretary of the State and Consumer Services Agency; Lon S. Hatamiya, Secretary of the Technology, Trade & Commerce Agency; and Maria Contreras-Sweet, Secretary of the Business, Transportation & Housing Agency. The letter stated:

"Thanks in part to the leadership of the state's top companies and business organizations, we have demonstrated that we can make a difference. We now ask that you add your company's name to this list in recognition of your efforts to date, and that you continue to reduce power consumption as much as possible... The toughest weeks lie ahead with the hottest, prolonged heat spells expected in late August and early September. We are writing with an urgent request for your assistance."

With a vigorous follow-up effort, Flex Your Power signed on 70 additional businesses.

Another action Flex Your Power took in the early fall of 2001 was to broaden participation of companies by asking them to appoint energy coordinators, not necessarily CEOs. Through the energy coordinators, Flex Your Power continued to disseminate educational

materials. Flex Your Power communicated regularly with energy coordinators about energy efficiency incentive and rebate programs offered by the utilities, CEC and the Power Authority. Incentives and rebates included:

- Cool Savings — Cool Roofs Program — Efficiency program
- Cool Savings — Solar Shade Screen — Efficiency program
- Real Time Meters Program
- 20/20 Rebate
- Express Efficiency (Small and Medium Businesses)
- Energy Efficient Buildings ENERGY STAR[®] program

By the fall, Flex Your Power had achieved its target of 1,200 business energy coordinators.

Also during this time, Flex Your Power began to collect anecdotes of energy conservation and efficiency success stories from the business community. The anecdotes were used in press contacts to show the progress and success of the business community in saving energy, and encourage other businesses to team up and realize energy and energy cost savings. The anecdotes were also used to draft best practice guides on energy conservation and efficiency for distribution to the business community.

Results

More than 70 business associations including all the major ones statewide and hundreds of major businesses signed the Declaration of Action and drastically cut energy use during the summer of 2001. Over the remainder of the campaign, Flex Your Power enrolled 1,332 business energy coordinators and communicated with them regularly about energy efficiency opportunities, new initiatives and the distribution of Flex Your Power collateral material.

Numerous businesses across the State realized energy cost savings as a result of conservation measures implemented during the summer of 2001. Success stories include:

- **Allergan, Inc.** in Los Angeles performed energy audits on all of its facility buildings to identify areas to reduce energy use. In 2001, compared with 2000, the company headquarters in Irvine, Calif., reduced electrical consumption 12 percent.
- **Automobile Club of Southern California** in Orange County retrofitted lighting and installed HVAC computer and energy management system upgrades throughout the company's 75 locations in 13 Southern California offices.
- **Bank of America** turned off outside lighting, including its "B of A" logo on all 1,000-plus buildings throughout the State and implemented other Flex Your Power commitments such as delamping 25 percent of its lighting.
- **Gelson's Markets** in Los Angeles installed energy management systems to control lighting, HVAC and case warmers saving the supermarket chain roughly 500,000 kW annually.
- **Lockheed Martin Missiles and Space** in Sunnyvale participated in Pacific Gas & Electric's (PG&E) Demand Reduction Program. As part of the program, Lockheed retrofitted lighting and conducted an employee energy awareness campaign. In total, Lockheed received more than \$600,000 in rebates and realized energy savings of \$4.8 million in 2001.
- **Lowe's Companies** in Irvine initiated an aggressive energy program for customers. Customers were educated on ways to reduce energy use through printed

Flex Your Power communicated regularly with 1,332 business energy coordinators over the course of the campaign.

Business success stories include Marriott Hotels, which through an aggressive energy conservation campaign, achieved a BTU-per-square-foot improvement in 2001 of more than 10 percent, with one hotel reporting a 50 percent improvement.

materials, TV advertisements and training classes. In one way or another, Lowe's reached more than 37 million homes with energy messages.

- **Marriott International, Marriott Hotels** represents seven different hotel chains statewide. Through an aggressive energy conservation campaign, which included internal audits, retrofit improvements, conservation best practices, utility tracking and new lighting standards, Marriott achieved a BTU-per-square-foot improvement in 2001 of more than 10 percent, with one of the hotels reporting an astonishing 50 percent improvement.
- **Roche Bioscience** in Palo Alto installed variable speed motor controllers to modulate supply and exhaust fans, large high-efficiency water chillers for the HVAC system and lighting retrofits. The conservation and efficiency improvements resulted in a 16 percent decrease in electricity consumption and a 23 percent decrease in natural gas usage for 2001 compared with 2000. Roche saved more than \$320,000 in electric costs.
- **Unisys Corporation** in Orange County installed a cool roof and implemented a comprehensive employee-driven conservation program. The program helped the 303,000-square-foot office produce remarkable results: 22 percent power reduction and 1,421,000 kWh and \$1,079,325 saved over five months in the summer of 2001.
- **Verizon Communications** in locations throughout California delamped stores statewide (removed more than 40,000 lamps for approximately \$438,000 in annual energy cost savings); retrofitted lighting and upgraded HVAC systems in 72 major buildings (for \$1.7 million in annual energy cost savings); and implemented a communication program to raise conservation awareness among employees. Verizon realized an 8 percent reduction in energy in 2001 and a permanent annual energy reduction of 49.7 million kWh.

Initiative #5: Energy Education in Schools

Senate Bill (SB) 5X earmarked \$7 million for the SCSA to implement an integrated classroom outreach program to teach school children about energy efficiency in the home and at school. This important initiative had two parts: In the spring, put energy reduction information in the hands of teachers, principals, students and parents before the summer, and in the fall, developed and implemented programs, partnerships and professional development activities for the 2001/02 school year, which would have lasting energy-savings benefits.

Part 1

The target audience in the spring of 2001 was the 4th, 5th and 6th grades throughout the State. The goals were:

- Teach students about energy efficiency.
- Enlist students to help to raise the energy awareness of their parents and school administrators.

Flex Your Power and the SCSA finished developing the Kids' Flex Your Power Energy Challenge — an energy activity kit and a resource guide for 4th- 6th grade teachers and students — shortly after receiving the funding. The activity kit, available in five different languages, provided energy conservation lessons, online resources and facts, as well as a take-home energy audit homework assignment that parents/guardians had to sign. Teachers receiving 75 percent class participation on the home energy audit homework assignment would be eligible for a \$30 gift certificate for educational materials.

To kick off the first part of this initiative Governor Davis on May 8, 2001, sent a letter to 4th, 5th and 6th grade California teachers, urging them to use the Kids' Flex Your Power Energy Challenge resource guide and activity kit in their classes. Flex Your Power focused its outreach efforts on three main targets:

1. **Schools:** The Kids' Flex Your Power Energy Challenge was publicized through direct mailings to teachers, phone calls to principals, conferences and workshops, newsletter articles (e.g., UTLA and CASBO) and meetings with school superintendents. By May 21, 2001, the campaign had distributed the materials to all 4th-6th grade teachers in the State.

The Flex Your Power team followed up the mailings with phone calls to determine if materials had been received, encourage participation and solicit commitments. A "Fax Back" commitment response form was faxed to all the contacts. These calls did not ask for a verbal pledge commitment.

Throughout the fall of 2001, the SCSA and Flex Your Power held meetings with school districts and schools to encourage the use of the Kids' Flex Your Power Energy Challenge activity kits. To facilitate outreach, pencils and book covers promoting the activity kits were distributed at workshops, conferences and teacher trainings.
2. **Science Centers:** The campaign partnered with the seven Science Centers in the State to use the Kids' Flex Your Power Energy Challenge as part of their summer program. The centers were California Science Center in Los Angeles, The Exploratorium in San Francisco, Chabot Science Center in Oakland, Discovery Science Center in Santa Ana, Lawrence Hall of Science in Berkeley, Reuben Fleet Science Center in San Diego and The Tech Museum of Innovation in San Jose. The Science Centers were provided with compact fluorescent light (CFL) bulbs to distribute to the parents of children who completed a home energy audit.
3. **Boys and Girls Clubs:** The campaign also partnered with the Boys and Girls Clubs in the State on the Kids Flex Your Power Energy Challenge.

FIGURE 8. Kids Flex Your Power Energy Challenge

ENERGY FACTS

- If the cooling temperature in every California home was turned up 2 degrees, we could save 770 megawatts (enough electricity to power 770,000 homes). If the heating temperature in every California home was set at 68 degrees instead of 72 degrees, we could save over 500 megawatts (enough electricity to power 500,000 homes).
- Air conditioners account for 30% of the state's electricity use during the summer.
- Peak hours are the time of day, generally between 4 and 6pm, when most people use electricity.
- For each load of laundry your family washes in cold water instead of hot water, you save enough energy to power your TV for 24 hours!
- The electricity required to light one regular incandescent can light four compact fluorescent lightbulbs.
- Refrigerators, dishwashers, microwaves, TVs, and other electrical appliances that carry the Energy Star label use at least 20 percent less electricity than those appliances that do not carry the Energy Star label.

ENERGY CONSERVATION TIPS

There are a number of very simple steps that your family can take to save electricity. Here are a few tips:

No Cost Investments

- When it's hot, set the thermostat at 78 degrees or when it's cold, set the thermostat at 68 degrees.
- Think off-peak! Use less electricity between 9 and 6pm.
- Use fans instead of air conditioners for cooling and avoid using space heaters during colder months.
- Do only full laundry loads. Reducing the number of laundry loads per week and hanging clothes up to dry saves on your monthly electricity bill.
- When it's hot, keep shades and curtains closed to prevent the sun from heating up rooms and air from escaping. When it's cold, open shades and curtains to let the sun in to warm your house or school.
- Do only full dishwashing loads and allow outside air to dry your dishes.
- Recycle your second refrigerator—this could save up to \$150 per year.

Investing to Save Energy

- Replace incandescent lightbulbs with compact fluorescent lightbulbs.
- Wrap your water heater with a water heater blanket.
- Fix defective plumbing or dripping faucets—drips waste energy and water.
- If your refrigerator, washer, air conditioner, dishwasher, and other large appliances are more than 10 years old, replace them with an Energy Star appliance.

FAMILY TAKE-HOME PAGE

The Kids' FLEX YOUR POWER Energy Challenge

Encouraging conservation—in school and at home!

DEAR FAMILY,
This homework assignment is part of an energy conservation activity entitled The Kids' Flex Your Power Energy Challenge. It consists of a Home Energy Action Plan, which is a brief home energy audit that will be conducted by you and your child. The audit is designed to help your family assess your home energy use, explore ways to save energy, and reduce your monthly electricity bill. It also provides information about various state energy conservation programs and services. These include rebates for ENERGY STAR appliances and incentives if you cut your energy use by 20 percent. You are encouraged to return the signed Family Energy Action Pledge to your child's teacher for display in the classroom.

WHY CONSERVE ENERGY? Conservation helps ensure that there will be enough electricity for everyone. Now is a good time to think about ways we can all do our part to save energy. By conserving electricity (and helping the state avoid rolling blackouts), you can save money on your own utility bill and be eligible for special rebates, discounts, and other incentives.

FIND OUT MORE! To read more about how to conserve energy or find out more about special incentives and programs that encourage energy conservation, check out the following Web sites or call the following toll-free numbers:

Consumer Affairs: 1-866-968-7797
California Energy Commission: 1-800-555-7794

Flex Your Power! This is the Governor's energy Web site. Go here to find energy-saving ideas, rebates for energy-efficient products, answers to questions, and more. www.flexyourpower.ca.gov

California Energy Commission: A consumer energy site to assist Californians in saving electricity and money at work and at home. www.consumerenergycenter.org

We plan to increase energy conservation in our home by:

No Cost Actions

- ☐ Setting the thermostat to 78 degrees in summer and 68 degrees in winter.
- ☐ Turning off lights and equipment in unoccupied rooms.
- ☐ Avoid using certain appliances during the peak hours of 4 and 6pm.
- ☐ Washing full loads of laundry.
- ☐ Hanging up clothes to dry.

Investing to Save Energy

- ☐ Installing _____ Compact Fluorescent Lightbulbs.
- ☐ Weatherstripping _____ doors.
- ☐ Caulking _____ windows.
- ☐ Taking advantage of the rebates for ENERGY STAR appliances.

Your Own Ideas

Yes, my child helped our household learn more about energy conservation and we worked together on the Home Energy Action Plan.

Parent/Guardian Signature _____

Student Signature _____

PLEASE SIGN, CLIP, AND HAVE YOUR CHILD RETURN THIS FAMILY ENERGY ACTION PLEDGE TO SCHOOL.

The Kids' Flex Your Power Energy Challenge included an energy activity kit and a resource guide for 4th, 5th and 6th grade teachers and students.

The SCSA and Flex Your Power conducted several listening sessions to help develop a comprehensive energy education program for the 2001/02 school year.

In June 2001, the SCSA began developing further options for expending the roughly \$5 million allocated for energy education in schools. The first action was to develop a correspondence and phone contact outreach plan for year-round schools, focusing on classrooms able to participate during the summer of 2001. The Flex Your Power campaign made personalized calls to the principals and/or school districts of 4th-6th grade schools that were in session during the summer.

Part 2

The second part of the Energy Education in Schools Initiative was designed to become a more comprehensive program that could reach a wider audience. Flex Your Power had these goals for all grades:

- Implement energy-saving practices at home and school.
- Develop an energy compendium that teachers could use to effectively integrate energy curricula into their classroom lessons.

Planning for the 2001/02 school year programs began in the summer of 2001. The SCSA and Flex Your Power conducted several listening sessions to assist them in developing a more comprehensive energy education program. Efforts included:

- Talks with teachers,
- Creation of a public/private sector education working group,
- Meetings with the Secretary for Education and all the major education groups in the State,
- Attendance at school organization conferences, and
- Outreach to legislators, principals, school superintendents, county offices of education, utilities and other energy groups about the education program.

The SCSA and Flex Your Power's collaboration with the superintendents and representatives in school districts throughout the State, state and federal agencies, utilities, science centers and more than 40 professional and educational associations and organizations resulted in the development of a broad range of program activities:

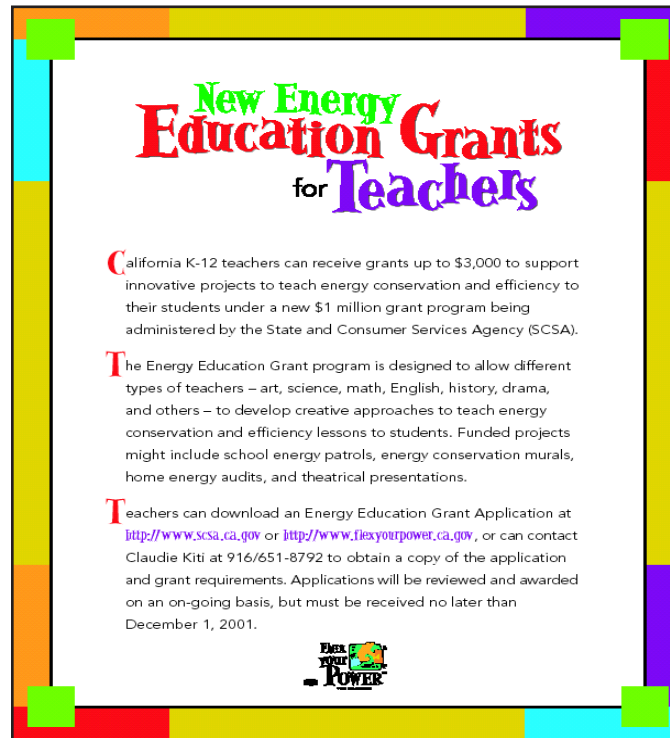
1. **Energy Education Grant Program:** The

SCSA allocated \$1 million to implement an Energy Education Grant Program for teachers. The program provided California

K-12 teachers with the opportunity to receive grants of up to \$3,000 to support innovative projects to teach energy conservation and efficiency to their students. The grant application was posted on 10 websites, including www.scsa.ca.gov, www.flexyourpower.ca.gov, California Teachers Association, California Science Center and the Office of the Secretary of Education. A flyer was developed announcing the teacher grants for the legislators to distribute at Back-to-School Nights. Workshops were also used to promote the grant programs.

2. **California Arts Council School Energy Conservation Program:** The SCSA collaborated with the California Arts Council to fund the Energy Education Through Arts grant program, which presented an opportunity for artists in various disciplines — visual arts, theater, dance, music, literature and media arts — to develop creative approaches to teaching energy conservation and efficiency. Grants of up to \$6,000 were awarded for artists to work with teachers and students in K-12 schools. Each grant also included a public display component, such as a staged performance, mural painting, poetry reading, video screening, touring exhibit or Internet art gallery. The Council also held an energy art poster contest for kids. Winning posters were hand delivered to all members of the Legislature and became a part of a larger poster hanging in state buildings.
3. **Innovative Energy Education Grant Program:** The SCSA allocated \$1.8 million to implement a grant program for public and private organizations, as well as nonprofits.

FIGURE 9. Energy Education Grant Flyer

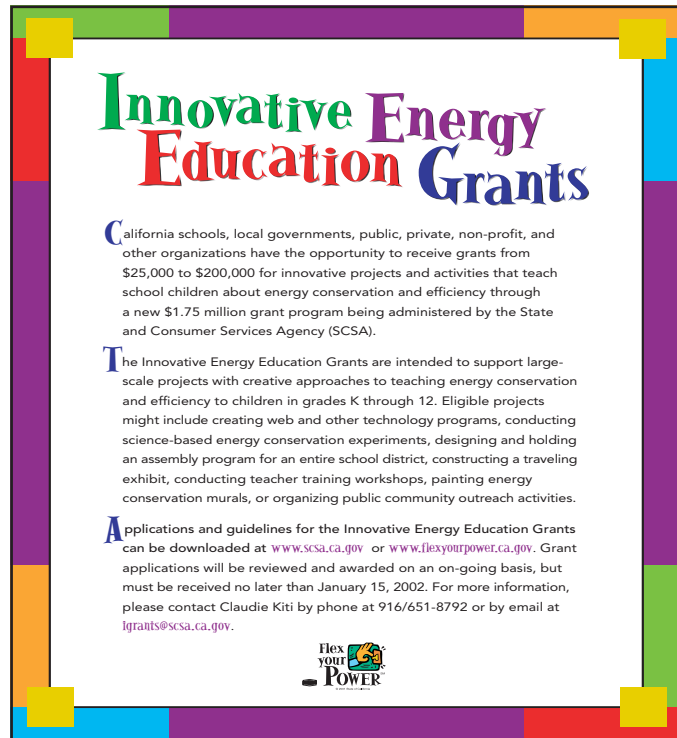


Grants of up to \$6,000 were awarded for artists to work on energy-conservation-related projects with teachers and students in K-12 schools.

The SCSA partnered with the California Science Center to develop energy conservation exhibits, a summer science program and an energy conservation school outreach program.

The program enabled California schools, local governments and non-profit organizations to receive grants of \$25,000 to \$200,000 for larger scale innovative projects and activities that teach school children about energy conservation and efficiency. Eligible projects included creating Web and other technology programs, conducting science fairs, designing and holding an assembly program for an entire school district, constructing a traveling exhibit, training teachers, creating energy conservation murals and reaching out to the community.

FIGURE 10. Innovative Energy Education Grant Flyer



4. **Central Valley Schools Energy Efficiency Program:** Central Valley districts undertook a comprehensive energy education, teacher training and facility improvement effort. The program provided technical assistance to help school districts develop energy conservation projects that increased school site energy efficiency. Recently, the SCSA was awarded \$4.4 million from the CPUC to expand this Central Valley initiative. With this new funding, SCSA anticipates that it will reach up to 50 school districts during the next two years.
5. **K-3 School Assembly Program:** The SCSA allocated \$75,000 to finance a partnership with the Department of Conservation to integrate a round of energy conservation questions into an existing Recycle Rex School Assembly Program — a fun-filled game show format for K-3 students that included prizes, student participation and an appearance by the other purple dinosaur, “Recycle Rex.”
6. **California Association of Student Councils (CASC):** CASC, a student leadership group that works with elementary, middle and high school student councils throughout the State, adopted energy conservation as a central policy focus and incorporated the message in its student leadership workshops and activities. This included expanding school outreach efforts, developing a mini-grant program for student councils to develop energy conservation activities at their school site and increasing the number of student leadership training seminars on energy conservation.
7. **California Science Center:** The SCSA partnered with the California Science Center in Los Angeles to develop a comprehensive energy conservation program, including energy conservation exhibits, a summer science program, an energy conservation school outreach program that reaches up to 250 students at a time

and an energy conservation exhibit that will travel to other science centers in the State. An estimated 1.3 million people a year, most of whom are children and students, visit the Science Center. This program is continuing throughout the 2002/03 school year.

8. **California Boys & Girls Clubs:** The SCSA partnered with the Boys & Girls Clubs of America to coordinate and implement an energy program to a select group of 15 clubs in five regions of the State — Los Angeles, San Francisco, Sacramento, San Diego and Fresno. The clubs developed an energy conservation program for their members that included basic energy education, peer-to-peer training, community and family outreach, creative projects, regional conferences and community events. This California model is being used as a national model for other Boys & Girls Clubs around the country.
9. **Alliance to Save Energy (ASE) Green Schools Program:** The SCSA partnered with the ASE to increase the number of school districts implementing the Green Schools Program in the State. Green Schools is a highly successful, holistic energy conservation program that has been implemented in numerous cities and school districts throughout the nation.
10. **Outreach to School Districts:**
 - San Diego Unified School District (SDUSD) is the second largest district in California and the eighth largest urban district in the United States. San Diego was the first region in California to experience the price increases associated with the energy crisis. As a result, the SDUSD implemented a number of energy conservation and efficiency activities at its facilities, including ENERGY STAR® benchmarking and retrofit projects.
 - The Riverside/San Bernardino Energy Education and Conservation Incentive Program consisted of a full range of energy education and efficiency activities to promote energy conservation within seven school districts in Riverside and San Bernardino counties and provided technical assistance to these school districts as well as other programs. Activities associated with this program included disseminating energy education curriculum, conducting teacher trainings and providing technical assistance to schools on specific energy retrofit projects.

More than 4,100 teachers received Energy Hero Awards for attaining 75 percent class participation on the Kids' Flex Your Power Energy Challenge energy audit homework assignment.

Results

- **Kids' Flex Your Power Energy Challenge:** By May 21, 2001, the campaign had distributed the materials to all 4th- 6th grade teachers in the State. Approximately 135,000 students/households throughout California completed a home energy audit homework assignment included in the activity kit. More than 4,100 teachers received Energy Hero Awards for attaining 75 percent class participation on the energy audit homework assignment. Secretary Adams of the SCSA sent an acknowledgement letter to all participating teachers and schools.
- **Boys and Girls Clubs:** In early August, 917 activity kits were mailed to roughly 200 clubs throughout the State.
- **Energy Education Grant Program:** SCSA awarded 210 energy education grants to schools in 31 counties. Funded projects included science exhibits, energy conservation murals, science experiments, energy audits, field trips, professional development and energy patrols.

Flex Your Power worked with the CAN to develop a Declaration of Action for nonprofit energy conservation modeled after the CEO Declaration.

- **California Arts Council School Energy Conservation Program:** Twenty-four projects were funded in 15 counties, reaching an estimated 8,000 students and teachers.
- **Innovative Energy Education Grant Program:** Most of the eight funded projects were regional and multi-county in focus and have the potential to reach up to an estimated 2 million K-12 students and 24,000 teachers and community members.
- **K-3 School Assembly Program:** The Recycle Rex Assembly Program visited 850 teachers and more than 18,000 K-3 students at 68 schools in 12 counties during the 2001/02 school year with the message, "Recycling Saves Energy."
- **California Association of Student Councils (CASC):** To date, CASC has convened 20 energy workshops, training more than 3,000 student leaders. Through the mini-grant program, the SCSA awarded 26 grants to schools in 16 different counties across the state.
- **Alliance to Save Energy (ASE) Green Schools Program:** The SCSA funded activities in more than 20 schools in about 10 school districts, with more programs still to come. By using energy audits, energy patrols, classroom projects and facility operator training, the Green Schools Program achieved between 10 and 15 percent energy savings on average at the schools where it was implemented.

Initiative #6: NPOs/CBOs

Flex Your Power conducted a vigorous outreach campaign to approximately 30,000 non-profit organizations (NPOs) and community-based organizations (CBOs) across the State and challenged them to commit to a 20 percent reduction in energy consumption; specific measures to cut energy use both immediately and long-term; and to communicate an energy conservation message/pledge to their millions of members. The initiative targeted NPOs that had annual budgets of \$25,000 or more in the health, education, social/human services, associations, unions, arts, environmental and public/social benefit sectors. Target groups included a wide spectrum of organizations, such as the Asian Pacific American Legal Center, Boys and Girls Club, California Interfaith Power and Light, CALPIRG, League of California Homeowners and the Inter-Tribal Council of California. Flex Your Power also partnered with the California Association of Nonprofits (CAN) to encourage these groups to educate their members and communities on energy conservation and to convince them to reduce energy use by 20 percent in their homes.

FIGURE 11. NPO/CBO Declaration of Action



In May 2001 Flex Your Power worked with CAN to develop a Declaration of Action for nonprofit energy conservation modeled after the CEO Declaration. The mailing included this Declaration of Action, a letter from key CBOs, a signature response page, sample text to create an e-mail message to members and a “Save Energy Pledge” to add to the organization’s website or (also used in the Local Government Initiative) to add to a newsletter.

Flex Your Power recruited CBOs by phone during the month leading up to the mailings and then made follow-up calls to ensure that CBOs received the materials

A total of 545 nonprofit organizations pledged to cut energy use by 20 percent and approximately 16,000 individuals matched those pledges.

and to encourage them to return the response form. The phone calls targeted the largest energy users and organizations with the broadest reach in their community. Phone conversations enabled Flex Your Power to answer questions, clarify concerns and provide further conservation tips.

For the CBOs that sent in a signature response form, the Flex Your Power team helped the organizations establish a public outreach plan. Flex Your Power encouraged the organizations to circulate the Save Energy Pledge to the public by:

- ✓ Including the pledge in an upcoming newsletter
- ✓ Conducting a viral e-mail marketing campaign to direct individuals to the Flex Your Power website to sign the pledge online
- ✓ Including information on their website to direct individuals to the Flex Your Power website to sign the pledge online
- ✓ Petitioning events
- ✓ Convening rallies
- ✓ Including the postcard pledge in an existing mailing, distributing it door-to-door, or distributing it at events.

The “Light Brigade” distributed more than 1.9 million light bulbs to 475,000 residences in all 58 counties of the State and delivered 1.4 million Flex Your Power energy-saving tips brochures to more than 700,000 residences.

FIGURE 12. NPO/CBO Signature Response Form



Flex Your Power
NONPROFIT INITIATIVE
ENERGY CONSERVATION DECLARATION OF ACTION
SIGNATURE RESPONSE FORM

I support and will sign the Energy Conservation Declaration of Action and hereby authorize:

☐ YES ☐ NO My name and organization to be listed as a signer of the Declaration of Action.
☐ YES ☐ NO My name and organization to be listed as a signer of the Energy Conservation Declaration of Action in print media advertising to encourage other organizations to adopt the same actions.
☐ YES ☐ NO My name and organization to be listed as an organization which will conduct outreach to and engage my constituents in the Flex Your Power Energy Efficiency Initiative.

Please print your information below and sign within the signature box below.

Name _____	Fax _____
Title _____	Email _____
Organization _____	Energy Conservation Contact (if different) _____
Address _____	Energy Conservation Contact Email _____
City, State, Zip Code _____	Energy Conservation Contact Telephone _____
Telephone _____	Energy Conservation Contact Fax _____

Signature Box - Please provide a reproducible signature in pen in the center of the box.

PLEASE RETURN IMMEDIATELY. FAX TO: 916-651-9142.

Results

A total of 566 NPOs pledged to cut energy use by 20 percent and approximately 16,000 individuals matched those pledges. Flex Your Power estimated that with the help of nonprofits and community-based organizations, the campaign reached approximately 2.2 million state residents with educational information about energy conservation and efficiency.

In addition to spreading the energy conservation message to its members through newsletters, websites and e-mails, many NPOs/CBOs took steps to reduce energy use in their facilities:

- The **American Lung Association** offices reduced its electricity use by as much as 25 percent. The Central California affiliate adopted a four-day work week through September, which resulted in a 44 percent decrease in electricity consumption in just one month. The Santa Clara/San Benito affiliate used fans throughout its office. Energy-saving light bulbs and conservation information were distributed at American Lung Association of California board meetings.
- The **Arts Council of Placer County** placed Flex Your Power messages in its bi-monthly newsletter and posted notes on gallery lights declaring, “Lights are off to conserve. If you are here to see the artwork, we will be happy to shed more light on the subjects.”
- The **Asian Pacific American Legal Center** included the Save Energy Pledge in its newsletter, which reaches 3,000 people. The center received an Electric Trust Administrative Community Grant to address energy conservation and blackout preparation in Asian Pacific Islander communities.
- The **Inter-Tribal Council of California** provides community resources information to Native Americans statewide. A Flex Your Power message was inserted into August's newsletter, which was sent to 112 tribes statewide, reaching out to approximately 150,000 Native Americans. Inter-Tribal Council staff set thermostats at 78 degrees F, turned off lights and vents in all unoccupied office rooms and turned off all office machines when not in use. Break-room machines and refrigerators were either turned off when not in use or their thermostats were raised.
- **Mercy Housing California**, which develops low-income housing, reached out to 1,000 tenants/residents in the Sacramento area via newsletters with the Flex Your Power conservation message; cut energy use 34 percent by changing summer office hours to 6:30 a.m.-3:30 p.m.; turned off half of all the lights in the office;

kept the thermostat at 78 degrees F; and made sure that office equipment was on “save energy” mode when not in use. Mercy Housing qualified for a 20/20 rebate, and with another tenant, cut energy use 32 percent in its entire building.

- **Visalia Emergency Aid** provides food and cash assistance to low-income residents of Tulare County. The organization conserved energy by changing office hours from 8 a.m.-5 p.m. to 7 a.m.-4 p.m. and by using air conditioning after 1 p.m. only.

Initiative #7: “Light Brigade”

Through Assembly Bill (AB) 29X, the Governor and Legislature instructed the California Conservation Corps (CCC) to use \$20 million for the Mobile Efficiency “Light Brigade” to deliver high-efficiency lighting to low-income residents by August 31, 2001.

Starting in March, the CCC conducted several planning and strategy meetings with Flex Your Power and several other partners (Department of Community Services and Development, State and Consumer Services Agency and 11 local corps) and interested parties to determine the most cost-effective action plan. The task force decided that door-to-door delivery of CFLs in low-income neighborhoods would provide the fastest payback. The Department of Community Services and Development (CSD) used census and demographic data to help identify and locate the low-income populations in the State. The result of the planning was the “Light Brigade” program, a 17-week door-to-door walk in low-income neighborhoods throughout the State to provide home energy audit education, rebate information and compact fluorescent light bulbs (CFLs).

The CCC conducted one-day training sessions for at least one staff person in each CCC district and local corps, who then trained corpsmembers and other staff from their own organization.

Flex Your Power coordinated printing of brochures, media and public information.

On May 19, 2001, Governor Davis in Los Angeles announced the kick off of the “Light Brigade.” Between May and August 2001, more than 1,100 California Conservation Corps (CCC) members from every service district and 11 local corps mobilized to distribute energy-efficient light bulbs and educational material to low-income families. After areas were designated and maps and printouts of streets distributed, trained crews consisting of two corpsmembers per home walked door-to-door with a script.

For residents who answered the door, the crews shared information about energy conservation and how using CFL bulbs would save money and energy. The crews offered each home four CFLs and two educational brochures containing general information about the CCC, energy conservation tips and information about CFL bulbs. The brochures were printed in English and Spanish. Where no one answered the door, crews left brochures and a door hanger with general energy-saving information.

Flex Your Power worked to ensure coordination between the CCC and local governments. Each week, the CCC sent Flex Your Power a list of cities and neighborhoods that the “Light Brigade” was planning to visit. Flex Your Power worked with the League of California Cities (LCC), California State Association of Counties (CSAC) and California Special Districts Association (CSDA) to post the information on their websites to give their cities, counties or special districts “advance warning” of the “Light Brigade” in their community. Flex Your Power’s coordinating efforts gave the county or city manager and elected officials the opportunity to join the “Light Brigade.”

The Agriculture Action Initiative aimed to help agriculture businesses learn how to shift loads off-peak and to determine suitable retrofits and available funding for such retrofits.

Flex Your Power formed partnerships with agricultural organizations and agricultural businesses to disseminate information on funding for energy efficiency programs.

Results

Under the “Light Brigade” Initiative, the CCC and local corps mobilized more than 1,100 corpsmembers from 29 offices to distribute energy-efficient light bulbs and educational material to low-income families. Corpsmembers walked 7,300 miles distributing more than 1.9 million light bulbs to 475,000 residences in all 58 counties of the State and delivered 1.4 million Flex Your Power energy-saving tips brochures to more than 700,000 residences.

The CCC projected the following savings based on the accomplishments of the “Light Brigade”:

- Homeowners using the energy-efficient bulbs reduced peak electricity demand by approximately 121 MW — the equivalent of the energy consumption of 90,000 residences.
- CFL recipients saved a total of more than 134 million kilowatt hours per year and will save a total of more than \$17 million on their electricity bills each year.
- The savings of \$17 million per year will pay back the cost of purchasing and distributing the CFLs (\$19 million) in approximately 12 months.
- With the bulbs having an average lifespan of six years, the cost of the project (\$19 million) will generate more than \$102 million in total electricity savings.

Initiative #8: Agriculture Action

Flex Your Power challenged agricultural producers, processors and irrigators to pledge their support to this statewide effort and cut their energy consumption by improving agricultural pumping efficiency and agricultural processing efficiency through operational changes and retrofits. Flex Your Power designed the Agriculture Action Initiative to help agriculture businesses learn how to shift loads off-peak and to determine what retrofits would be most suitable and take advantage of available funding for such retrofits. SB 5X appropriated \$83.6 million to the CEC to provide grants to the agricultural industry to install energy-efficient hardware and other efficiency mechanisms to reduce peak electricity load demands. Nearly \$75 million of that money was made available to help agricultural producers and processors reduce peak electricity use through the “Harvest the Rewards” Agriculture Peak-Load Reduction Program. Funds could be used to:

- Offset the costs of testing pumps and retrofitting or replacing pumps to increase efficiency.
- Modify motors in dairy milking barns.
- Add insulation to wine storage tanks or cold storage units.
- Automate control systems.
- Purchase and install advanced metering equipment to improve load management.

A long-term energy efficiency and conservation plan was developed with specific goals, including improving the efficiency of agricultural pumping, reducing megawatts at peak hours, repairing leaks in irrigation delivery systems and challenging the industry to implement “Agriculture’s Energy Efficiency and Efficient Water Management Best Practices.” In April 2001, Flex Your Power’s proposed agricultural initiative called for the following steps:

- ✓ Provide and support technical training and outreach programs.
- ✓ Encourage and support energy efficiency in crop irrigation at the industry and farm level.

- ✓ Identify and support conjunctive management of surface and groundwater supplies.
- ✓ Support pump testing and retrofitting.
- ✓ Identify and support opportunities for peak-load shifting and efficiency by irrigators.
- ✓ Identify and support opportunities for peak-load shifting and efficiency by processors.
- ✓ Identify and implement energy conservation measures on dairies and other animal operations.
- ✓ Participate in the Water Awareness Month (May) activities to include the water and linked energy messages.
- ✓ Develop strategy for early notification of Stage 2 and Stage 3 alerts.
- ✓ Participate in the “Flex Your Power” public education campaign. The agriculture community was asked to distribute energy conservation and efficiency messages and materials in industry newsletters and communications.

Flex Your Power formed partnerships with agricultural organizations and agricultural businesses to disseminate information on funding for energy efficiency programs and to develop training programs on load shifting related to water pumping and processing. Flex Your Power developed supportive alliances with organizations including: the University of California Cooperative Extension Services, the U.S. Bureau of Reclamation, The Natural Resources Conservation Services, the Resource Conservation Districts, the Department of Water Resources Water Use Efficiency Office (including DWR local workshops and mobile labs), CalPoly, California State University - Fresno, County Agriculture Commissioners and the California Department of Food & Agriculture. Additional outreach was coordinated with: county farm bureaus, cooperative extensions, the Western Growers Association, the FFA, the Fresno Chamber of Commerce Ag/Water Committee, Fresno EDC, the Ag Commissioner Offices, the California Women for Agriculture, the Western Dairy Association and Ag-One/CSU Fresno School of Ag, Greenhouse & Nursery Grower Organizations.

Flex Your Power recruited energy coordinators from agricultural businesses in the same manner and with the same materials the CEO business initiative used to contact non-agricultural businesses. Through the energy coordinator, Flex Your Power established a communication to the agricultural business and was able to notify the community of any agricultural specific programs and rebates. Staff members made follow-up calls as new agricultural or applicable business rebate programs were rolled out. Such programs included: the CEC’s Harvest the Rewards and Energy in Agriculture Program; Cool Savings — Cool Roofs Program — Efficiency program; Cool Savings — Solar Shade Screen — Efficiency program; Real Time Meters Program; and the 20/20 Rebate.

Additionally, the Department of Water Resources (DWR) Office of Water Use Efficiency conducted outreach activities that included: helped with mobile irrigation laboratories; participated with the California Rural Water Association to present workshops related to rural water conservation, irrigation and financial assistance; partnered with the University of California Cooperative Extension to conduct workshops on irrigation scheduling; wrote and printed publications and articles on water efficiency issues; and used their websites to educate the agricultural community on water/energy conservation.

Flex Your Power, the governor and the leaders of the seven big statewide water associations sent out a joint letter challenging 1,130 water districts statewide to promote the message that saving water also saves energy.

Flex Your Power stayed in touch with water/energy coordinators on a regular basis to pass on new information, answer questions and share successful water/energy conservation stories from water agencies around the State.

Other organizations, through partnerships with the CEC, helped the State reach the agricultural community. The University of California at Davis conducted roughly 15 educational/training workshops for agriculture under a contract (\$22,500) with the CEC. The Center for Irrigation Technology (CIT), under the CEC's contract for Agricultural Peak Load Reduction, spent \$1.5 million to conduct more than 6,000 pump tests (average cost per test was \$250) during 2001 and 2002. CIT also began an On-farm Drainage Reduction Program, which called for workshops/training for on-farm drainage, and made energy conservation the theme at their annual conference.

Results

Flex Your Power sent out 53,000 brochures with basic information on funding programs to: county farm bureaus (15,000); trade shows and events (3,000); agricultural energy and irrigation organizations (10,000); education events (5,000); and additional agricultural groups (20,000). Approximately the same number of bilingual educational brochures on time metric and other irrigation-specific savings for irrigators were distributed through the same channels.

Initiative #9: Save Water — Save Energy

The Save Water — Save Energy Initiative was a joint effort between the State and both public and private water agencies to maximize conservation of water and energy statewide. More than 7 percent of California's energy use is consumed by transporting and pumping water alone. The idea, therefore, was to promote a new conservation message that saving water also saves energy — and as a result, to increase customer and water agency participation in efficiency programs.

A series of state-sponsored regional meetings were held in May with water districts around the State to discuss energy/water issues. The meetings focused primarily on black-out contingency plans and measures to ensure reliable delivery of safe, clean water. After the regional meetings, Flex Your Power met frequently with the DWR and seven statewide water associations that represent those water districts:

- Association of California Water Agencies (ACWA) (more than 400 members, urban and rural)
- California Urban Water Conservation Council (160 urban water agencies)
- California Urban Water Agencies (10 biggest members)
- California Water Association (43 members, private retailers)
- California Municipal Utilities Association (48 members, water/energy utilities)
- California Rural Water Association (500 rural water agencies)
- California Association of Sanitation Agencies (90 wastewater agencies)

Together, these groups developed an initial packet for water and wastewater agencies that included a challenge letter from the governor, a five-point energy plan pledge, a water/energy coordinator form and a summary of the initiative. The letter and five-point plan asked water agencies to agree to:

- ✓ Appoint a water/energy conservation coordinator.
- ✓ Take steps to maximize energy efficiency in their buildings.
- ✓ Coordinate with local utilities, appliance manufacturers and small businesses to promote the purchase of water and energy-efficient appliances.

- ✓ Conduct a general public education campaign to promote the “Save Water — Save Energy” message. Tailor Flex Your Power materials and use some state public education materials (lobby signs, brochures). Offer free energy/water audits.
- ✓ Work with local schools, community-based organizations, small businesses and the California Conservation Corps (CCC) to promote energy and water conservation.

FIGURE 13. Save Water — Save Energy Letter



At the same time, Flex Your Power identified the audience for the initiative. The final list totaled 1,130 names from all major water supply districts, other municipal utility districts that also provide water to their customers and sanitation agencies statewide. The campaign also worked with the associations and the DWR to develop an extensive water/energy coordinator information packet, modeled after the one created for the Energy-Efficient Communities/Local Government Initiative. The packet included a cover letter, information on how the water district could get involved and a public education materials order form.

The Save Water — Save Energy Initiative secured 261 water/energy coordinators from water and wastewater agencies to commit to reducing energy use by 15 percent in their facilities.

Flex Your Power recruited the participation of water agencies. Those who returned pledge and water/energy coordinator forms were mailed an information packet. The mailing was followed up with phone calls, during which Flex Your Power assessed the needs of each water/wastewater agency; walked coordinators through worksheet materials in the information packet; and pointed water agencies to the Acwanet.com website (www.acwanet.com/co-op/financial.asp) for comprehensive information on financial incentive programs offered by the CEC, utility companies and other state agencies. Flex Your Power encouraged coordinators to get free water and wastewater facility retrofit manuals from the CEC’s “Energy-Water Connection” program or by e-mailing an order to the State’s Peak Load Reduction program. Flex Your Power continued to call agencies that had not turned in an energy coordinator form to encourage them to participate.

Flex Your Power stayed in touch with the water/energy coordinators on a regular basis through e-mail and phone to pass on new information, answer questions on conservation and efficiency and point them in the direction of experts for more technical assistance. Flex Your Power asked agencies about conservation and efficiency projects that they had already implemented and that had resulted in energy savings. Periodically, Flex Your Power sent e-mail updates to share successful water/energy conservation stories from

Water agency success stories include Humboldt Bay Municipal Water District, which replaced aging water pumps with energy-efficient pumps — and realized a 54 percent reduction in July 2001.

around California and news from the State about programs, rebates and the status of the energy situation.

FIGURE 14. Save Water — Save Energy Tips

TIPS TO SAVE WATER AND ENERGY AT HOME

Every gallon of water you save helps conserve energy and cuts your water and energy bills.

USE APPLIANCES AFTER 7 P.M.
Use large appliances, such as washing machines and dishwashers, after peak hours. And make sure your dishwasher or clothes washer is full before running a load.

SAVE WATER OUTDOORS.
Lower the amount of water you use when you wash the car by turning off the hose, using a bucket for the wash, and doing a quick rinse. Save electricity and water by watering your garden or lawn during the nighttime or early morning hours. Also, use automated sprinklers and drip systems, set them to accommodate the weather, and consider plants that do not require lots of water.

TURN OFF YOUR TAP
Hot water uses lots of energy. Take a shower instead of a bath (a bath uses about 42 gallons of water, while a 5-minute shower uses only about 16 gallons); turn off the tap when you shave (saves up to 12 gallons); and don't forget to turn off the tap when you brush your teeth (saves up to 5 gallons of water).

REPAIR LEAKY TOILETS AND FAUCETS.
In one year, a leaky toilet wastes over 22,000 gallons of water. A leak in the sink of just a single drop per second wastes an additional 2,400 gallons each year. Repairing leaks is an easy, do-it-yourself way to save thousands of gallons of water and lower your water bill.

INSTALL WATER-EFFICIENT FIXTURES.
Put in water-efficient toilets and for each toilet fixture replaced you can save an average of \$130 per year on your water and sewer bills. By installing a water-efficient showerhead, you can save even more!


REPLACE YOUR OLD APPLIANCES.
Send your old clothes washer and dishwasher into early retirement. New ENERGY STAR® labeled appliances use 50% less energy and 40% less water than standard models. Efficient clothes washers alone use less than half the energy of older models and save 20-30 gallons of water per load. Check your local stores or call your energy or water utilities for great rebates that can also save you money when you buy one of these newer models. Visit the Flex Your Power web site (www.flexyourpower.ca.gov) or call, toll-free, 1-866-YOURPOWER (968-7797) for more information on financial incentives.

OTHER EASY ACTIONS YOU CAN TAKE TO SAVE ENERGY NOW

USE ONE REFRIGERATOR INSTEAD OF TWO.
You can save \$150 a year just by unplugging your second refrigerator and recycling it.

ADJUST YOUR THERMOSTAT DIAL AND TURN UP ENERGY SAVINGS.
Set your thermostat to keep air conditioning at 78° F when it's hot outside, and your heating system at 68° F when it's cold. This simple step can help save up to 20% in heating and cooling costs.

DON'T LIGHT AN EMPTY ROOM.
Compact fluorescent bulbs save a lot. Turning out the lights saves even more. Turn off computers and other electronic equipment like ceiling fans and stereos when you're not using them.


www.flexyourpower.ca.gov

Flex Your Power identified and shared policy tools and programs undertaken by water agencies that can be replicated to save energy. All of the measures below emphasize the message that saving water, with all of the intrinsic benefits that brings, also saves energy (pumping/cleaning):

- Construct or maintain energy- and water-efficient water infrastructure in publicly managed facilities.
- Install water-efficient fixtures or appliances.
- Retrofit metering equipment.
- Internal management measures such as personnel training, administrative

agreements or contracts and the creation of a task force, division or position specific to water conservation.

- Require developers, water agencies, industrial water users and residents to install or retrofit water meters, install water-efficient fixtures or appliances and use reclaimed water for irrigation and other nonpotable water uses. Mandates can include retrofit-upon-sale ordinances, wastewater control ordinances, drought ordinances and water efficiency requirements for new construction.
- Prohibit businesses, industrial water users and residents from using water for certain uses or in non-designated areas or during the energy peak-load hours. Such injunctions can include prohibiting the use of water for landscaping and irrigation, prohibiting water service beyond a boundary (i.e., urban service boundary) or prohibiting the use of potable water.
- Offer financial and non-financial incentives to encourage water efficiency, which can include free water conservation kits, discounts or credits for implementing water-efficient measures and rebate programs to encourage water-efficient practices.
- Discourage customers from using excessive water by billing them on a tiered water rate structure or by having them pay surcharges. In addition, local governments or water districts can implement a metered billing system according to sewage use.

As stipulated in the initiative, both Flex Your Power and water and wastewater agency partners were committed to public outreach and education. This took place in two key ways:

1. **Collateral:** Flex Your Power distributed Save Water, Save Energy lobby signs and brochures to all water and wastewater agencies, which in turn spread the message to their communities.
1. **Energy-Efficient Appliances Initiative:** (See Initiative #11 below) Through a letter to the major water and wastewater associations and a calling program, Flex Your Power asked the associations and individual utilities to help promote Energy-Efficient Appliance Awareness Week to their members. The awareness week, held August 11-18, 2001, was designed to:
 - Create energy savings at each retail store level through conservation and efficiency measures,
 - Increase sales of ENERGY STAR[®] appliances through promotion of ENERGY STAR[®] appliance rebates offered by energy and water utilities, newspaper ads and collateral materials promoting the benefits of ENERGY STAR[®] appliances, and
 - Raise salesperson awareness of the benefits of ENERGY STAR[®] appliances through sales training materials.Water and wastewater agencies that offered rebates on dishwashers or clothes washers were encouraged to communicate with their local retailers prior to the event and ensure that retailers were ready to promote agency incentive programs, and provide Flex Your Power with updated information on their programs so that they could be listed in Flex Your Power resources.

By helping Flex Your Power promote Appliance Awareness Week in August, water and wastewater agencies contributed to the increased sale of ENERGY STAR[®]-qualified appliances.

Results

The Save Water — Save Energy Initiative secured 261 water/energy coordinators from water and wastewater agencies to commit to reducing energy use by 15 percent in their facilities, and challenged them to encourage similar action with their customers.

Flex Your Power's regular communication with water/energy coordinators about different energy conservation and efficiency policy tools and programs and about rebate, grant and loan programs offered by the CEC, CPUC and utility companies made it possible for hundreds of water agencies to implement a variety of energy efficiency and conservation programs. Many water agencies had great success implementing energy conservation and efficiency measures suggested by Flex Your Power. Many shared their stories. For example:

- **Central Contra Costa Sanitary District (CCCSD)**, located in Martinez, installed a modified air inlet to its existing cogeneration gas combustion turbine, which produces 3,000 kW (90 percent) of the treatment plant power requirements. The modified air inlet increased net power production by 200 kW. Despite renovations CCCSD was able to reduce imported electrical power by 58 percent in 2001 compared with 2000.
- **Foothill Municipal Water District**, located in La Canada Flintridge, revamped their energy conservation effort in March 2001 by: incorporating a public outreach campaign; working with Foothill Fire Department to coordinate power conservation with fire fighting efforts during peak summer months; auditing of all facilities; and CFL retrofits. A June 1 bill showed an energy-use reduction of 15 percent.
- **Humboldt Bay Municipal Water District**, located in Eureka, replaced aging water pumps with energy-efficient pumps, for a 44 percent reduction in energy usage during June 2001 and a 54 percent reduction in July 2001.

Flex Your Power recruited Home Depot and other hardware stores to help implement the Small Business Initiative.

- **Moulton Niguel Water District**, located in Laguna Niguel, used programmable logic controllers to control off-peak pumping. This technology enabled 77 district pumping stations to benefit from lower off-peak utility rates, saving the district \$320,000 each year and reducing its energy bill by 20 percent.
- **Orange County Water District (OCWD)** in Fountain Valley implemented a number of new projects to reduce energy load and preserve or extend equipment life. Its efforts paid off: OCWD reduced its total electrical load by 3 percent and saved 250,000 kW and approximately \$35,000 annually. The payback time on the investments was less than two months. OCWD supplemented its internal conservation plan with a number of innovative public outreach and awareness efforts, such as a children's water education festival at Hidden Valley Park in Irvine, Calif.; the Hotel/Motel Conservation Program; and the Restaurant Conservation Program.
- **Paradise Irrigation District** in Butte County set out to reduce energy consumption and save money by installing generators, dropping of the grid, utilizing new clarifying technology and replacing leaks. Paradise also participated in employee and public awareness campaigns.
- **Patterson Irrigation District**, located in Stanislaus County, reiterated its commitment to reduce energy consumption by at least 8 percent and by 20 percent during Stage 2 alerts. The District took actions, such as installing control devices and VFDs and participating in a public outreach effort, that increased energy efficiency by 40 percent and reduced energy consumption by 10-20 percent during the critical summer months while still meeting its irrigation water obligations to the family farms it serves.
- **South Tahoe PUD**, located in South Lake Tahoe, initiated the Wastewater System Energy Evaluation to demonstrate how operational and process modifications could be made to lower the demand and energy costs for various facilities within the wastewater system. The Evaluation highlighted several areas for improvement including the DO system and pump efficiency. For their efforts, South Tahoe PUD realized total energy cost savings of \$198,975 and energy usage savings of 2,888,800 kW. Most of the projects were funded with help from CEC and CPUC rebates and grants.
- **Vallejo Sanitation and Flood Control District**, located in Vallejo, embarked on five projects in 2001, all of which will result in a projected energy cost savings of \$189,000 and rebates of \$737,000. The programs included motor replacements, lighting retrofits, installation of motion sensors, installation of VFDs and CEC's generation replacement program. The standby generator replacement project alone will save the district \$168,000 annually.

By helping Flex Your Power promote Appliance Awareness Week in August, water and wastewater agencies contributed to the increased sale of ENERGY STAR[®]-qualified appliances, which save energy and also save water:

- Clothes Washers — 110 percent increase in California compared with a 50 percent increase nationally
- Dishwashers — 100 percent increase in California compared with a 50 percent increase nationally.

With Flex Your Power's help in developing and distributing collateral, many water and wastewater agencies were able to launch a public education and awareness campaign.

Phase 3 Announcements: Efficiency, Long-Term Behavior Change

Initiative #10: Small Business

Flex Your Power developed the Small Business Initiative to target the businesses across the State that were too small for the BOMA and CEO initiatives. The “small business” sector was an appropriate area to target given the expanse of small- and medium-size businesses across the State in 2001. As of May 31, 2001, there were more than 1 million small and medium nonresidential customers statewide with demands less than 20 kW per year, with an additional 202,000 nonresidential customers with energy demands below 500 kW per year.¹ Data on energy customers revealed that of California’s small commercial businesses, 27 percent were retail, 18 percent were offices and 8 percent were institutional.² As far as energy demand, retail customers accounted for 33 percent, offices accounted for 22 percent and other small customers accounted for 33 percent of the total small and medium customer demand.

Flex Your Power assumed that a significant number of small business owners and managers would take energy efficiency and conservation measures if they:

- Received financial incentive education, including estimated energy savings and product rebate information.
- Received public recognition for their efforts.
- Received assistance in the process of identifying and prioritizing equipment and operation improvements, technical expertise and energy-efficient product vendor listings.

The campaign strategy was to engage local hardware stores to engage the small businesses in their neighborhoods to make their shop/stores more energy efficient. Flex Your Power’s

The Flex Your Power team canvassed business districts in the five California regions to provide a free energy audit and informational energy-savings brochures.

FIGURE 15. Small Business Audit Leave-Behind Flyer

Small Business Energy Saving Tips

Savings On Lighting

Lighting represents up to 40% of your total electrical consumption. Making changes to your facility's lighting system can lower cooling and maintenance costs.

No Cost Savings

- Use partial lighting where possible
- Remember to turn off external lights
- Turn off interior lights when not needed – take advantage of sunlight
- Check occupancy/motion sensors for proper operation
- Check security and parking area lights for proper timing
- Clean light fixtures

Low Cost Savings

- Replace incandescent with ENERGY STAR® qualified compact fluorescent lamps (CFLs)
- Install timers and photocells
- Clean/replace yellow or hazy lenses, diffusers and globes
- Install occupancy/motion sensors
- Retain/replace vapor lamp systems with high-efficiency alternatives like metal halide
- Consider solid-state dimmer switches
- Install task lights, for close work at desks or drafting tables
- Replace T-12 lamps and ballasts with T-8 lamps and electronic ballasts

Savings On Heating and Air Conditioning

Heating and air conditioning can represent up to 45% of your total energy usage. Even small changes to your heating and air conditioning systems can produce savings.

No Cost Savings

- Turn it off! Sounds simple, but air conditioning and heating are often on when not needed
- Set your air conditioning thermostats as high and heating as low as is comfortable. Consider 78° in the summer, 68° in the winter. In the winter, lower the thermostat to 60° at night or when unoccupied
- Make sure heating and air conditioning vents are not blocked and close off in unoccupied rooms
- Reverse ceiling fans in the winter (let them draw air toward the ceiling)

Low Cost Savings

- Schedule seasonal tune-ups on your heating and cooling systems
- Install a programmable thermostat and set it to turn on an hour before employees arrive and off an hour after they leave
- Use ceiling fans in high-ceiling areas
- Insulate, insulate, insulate – walls, ceilings, floors, hot water pipe and duct work
- Change the filters regularly on both the heating and cooling equipment

Savings On Refrigeration

A refrigeration system does a lot more than keep its contents cold. Your refrigeration equipment could be costing you more to run than any other equipment in your facility.

No Cost Savings

- Don't overfill or underfill cases – follow load limit guidelines
- Defrost regularly and use a short defrost cycle
- Defrost only during off-peak hours. If you have nighttime covers, NEVER defrost when covers are in place – you may thaw products!
- Take control of your thermostat
- Clean and maintain equipment
- Keep plastic strip curtains clean

Low Cost Savings

- Install a defrost termination thermostat on ice-makers and refrigerators
- Install devices that save energy with anti-condensation heaters
- Protect refrigerator units from heat

Savings On Exit Signs

Emergency exit signs must be lit 24 hours a day, seven days a week. To save money while lighting the way, try using Light-Emitting Diode (LED) exit signs, or electroluminescent exit signs. You can save up to 90% of your exit sign energy costs.

The chart below shows a lifetime savings of about \$1,000 for one LED retrofit kit. This savings constitutes a payback of seven months. Plus, LEDs can last up to 100 times longer than ordinary incandescent bulbs, further reducing your lighting maintenance costs.

See the Light and Save Money

You can save up to 40% on your energy costs by changing from old T-12 fluorescent tubes with magnetic ballasts, to more energy-efficient T-8 tubes with electronic ballasts. The chart at the right shows an estimated lifetime savings of \$300 for a four-tube fixture. This savings provides a return on investment within two years. Plus, you can save as much as 15% more on your cooling expenses because less energy for your lights means lower air conditioning needs in your building.

Look for the ENERGY STAR® label when buying office equipment and other products.

1. CPUC, “Supplemental Direct Access Implementation Activities Report — State Summary,” June 15, 2001.
 2. Xenergy, Inc., “1999 State-Level Small/Medium Nonresidential MA&E Study,” Oct. 7, 1999, p. C-2.

Through the Energy-Efficient Appliances Initiative, Flex Your Power sought to maximize the availability of energy-efficient products in California and increase the sale of ENERGY STAR[®]-labeled products.

plan for small business involved three parts: The first, recruit as many small businesses as possible to hand out Flex Your Power energy conservation brochures. (The “dog days” of August were a real energy blackout threat.) The second would focus on providing information about small business retrofit programs, including rebates and loans offered by utilities, and no-cost and low-cost, readily implemented recommendations such as minor lighting upgrades. The third part would involve providing a free energy audit to small businesses to help them determine the most energy- and cost-efficient retrofits for each specific store.

Flex Your Power determined that the most effective method to reach and recruit the hundreds of small businesses across the State was a one-on-one, personal approach. Flex Your Power, with the help of local Chambers of Commerce, developed canvassing maps of counties, cities and neighborhoods, targeting those areas of dense small business populations. Flex Your Power recruited the help of Home Depot (which committed two employees from each of its stores statewide) and other hardware stores to provide free energy audits to small businesses. The goal was to recruit one home improvement partner (hardware store — independent if there was one, or chain) for each neighborhood. Flex Your Power developed the audit sheet with the utilities and trained the energy consultants to audit the stores using an Auditor Worksheet. Training sessions ran during the last week of August/first week of September 2001.

For four weeks during the late summer and early fall of 2001, the Flex Your Power team canvassed business districts in the five California regions. The goal was for teams of two to walk a business neighborhood, each talking to between 15 and 17 stores per hour. During the visits, employees introduced the campaign in general and the small business initiative specifically, and asked if the business would be interested in a free energy audit. If the business agreed to an energy audit, the manager was told a trained home improvement energy audit volunteer would call to schedule an appointment.

Flex Your Power also provided stores with: free residential energy-savings brochures for customers; information on rebates and incentives for small businesses; energy-saving tips for small businesses; and a window cling (sign) to participating small businesses indicating that they were participating in the Flex Your Power effort. When in the office, staff re-

FIGURE 16. Small Business Auditor Worksheet

Energy Saving Worksheet

Because when you're saving energy, you're saving money!

Existing fluorescent lamps replaced by T-8's

Qty of Lamps	City of Fixtures	Mult. by	Watts Saved with T8	1000 Watts per kW	Mult. by	Hrs per Year	Annual kWh Saved	Mult. by	Cents per kWh	Annual Cost Saved*
25	9	X	14	1000	=	X	=	X	=	=
40	11	X	25	1000	=	X	=	X	=	=
60	13	X	44	1000	=	X	=	X	=	=
75	16	X	51	1000	=	X	=	X	=	=
100	26	X	70	1000	=	X	=	X	=	=
150	36	X	97	1000	=	X	=	X	=	=
Total \$ Savings										

*Replacement for an 80 T-12 fixture is two 40 T-8 fixtures and so on.

Existing lower wattage incandescents or halogen lamps replaced by CFL's

Qty of Lamps	City of Fixtures	Mult. by	Watts Saved with CFL	1000 Watts per kW	Mult. by	Hrs per Year	Annual kWh Saved	Mult. by	Cents per kWh	Annual Cost Saved*
25	9	X	14	1000	=	X	=	X	=	=
40	11	X	25	1000	=	X	=	X	=	=
60	13	X	44	1000	=	X	=	X	=	=
75	16	X	51	1000	=	X	=	X	=	=
100	26	X	70	1000	=	X	=	X	=	=
150	36	X	97	1000	=	X	=	X	=	=
Total \$ Savings										

Existing incandescent exit sign, replaced with various wattage LED or electroluminescent exit sign

Qty of Lamps	City of Fixtures	Mult. by	Watts Saved with LED	1000 Watts per kW	Mult. by	Hrs per Year	Annual kWh Saved	Mult. by	Cents per kWh	Annual Cost Saved*
50	—	X	—	1000	=	X	=	X	=	=
40	—	X	—	1000	=	X	=	X	=	=
34	—	X	—	1000	=	X	=	X	=	=
25	—	X	—	1000	=	X	=	X	=	=
20	—	X	—	1000	=	X	=	X	=	=
10	—	X	—	1000	=	X	=	X	=	=
Other	—	X	—	1000	=	X	=	X	=	=
Total \$ Savings										

*Savings shown are estimates based on average factors.

Survey

- Total annual cost savings estimate if lighting recommendations are implemented
 Table 1: \$ _____
 Table 2: \$ _____
 Table 3: \$ _____
 Total: \$ _____
- Have you upgraded equipment in any of the following categories in the past 3 years?
☐ Lighting ☐ Heating
☐ Air Conditioning ☐ Refrigeration
- Which recommendations do you plan to implement within the next year?
☐ Heating ☐ Air Conditioning
☐ T-8 Retrofits ☐ Exit sign retrofits
☐ CFL retrofits ☐ Refrigeration
- If none, what is the biggest reason?
☐ Financial constraints
☐ Time constraints
☐ Estimated Savings not Enough
☐ Will Disturb Business too Much
☐ Don't Know Where to Start (where to purchase lights, who installs, etc.)
- If the following services become available, would you be interested in receiving information?
 Comprehensive energy audit ☐ Yes ☐ No
 Rebates or incentives for installation of efficient equipment ☐ Yes ☐ No
- Do you own your building?
☐ Yes ☐ No

Notes

contacted by phone the businesses that had given an answer other than “yes” or “no” to encourage as many businesses as possible to say “yes.”

Results

Flex Your Power staff canvassed and talked to significantly more than 2,000 small businesses. Of those, 534 small businesses signed up for an audit and more than 200 agreed to take collateral and window clings.

It should be noted that similar programs are already in place in some areas of the State:

- The Community Energy Services Corporation had been conducting energy audits for the past five years in the City of Berkeley. The CPUC awarded Berkeley a \$2 million grant to provide in-depth energy audits to 700 small businesses. The CPUC energy program subsidized 30 percent of the recommended retrofit costs for small businesses and merchant associations.
- Flex Your Power worked with Philips Lighting on an innovative pilot program and educational event. Philips, at its own expense, replaced every light in every building on a one-block business district street in Berkeley with energy-efficient lights. The results, developed by Lawrence Berkeley Labs and widely distributed, were staggering — a 45 percent drop in energy usage.
- The City of Santa Monica has a more elaborate energy audit program than Flex Your Power’s small business initiative. The Santa Monica program had a more detailed consultation and offered rebates, coupons and financial assistance to small businesses. Indeed the lesson of the Flex Your Power initiative was that these additional elements are optimal to success.
- In the case of San Francisco, the Flex Your Power staff worked with the programs in place and handed their small business leads off to the City of San Francisco Department of the Environment. The Department was running a similar type of program, hoping to sign on 5,000 businesses for energy audits.

Another issue that came up during canvassing was owner- vs. tenant-run businesses. Some tenants said they would like to have lower energy bills, but any retrofitting would have to be approved by the owner. Owners often said that since they did not pay the bills, the owners did not care about energy costs and did not want to incur the cost of retrofitting. Along the same line, tenants who did not pay the energy costs had little incentive to pass on the information to the landlord.

Initiative #11: Energy-Efficient Appliances: August 2001

The most far-reaching initiative designed to achieve long-term savings through energy efficiencies was a promotional partnership program between Flex Your Power, manufacturers and retailers of energy-efficient appliances statewide through this initiative. Flex Your Power wanted to maximize the availability of energy-efficient products in California and increase the sale of ENERGY STAR[®]-labeled products through salesperson training, coordinated marketing and promotional efforts and consumer education.

In planning this initiative, Flex Your Power sought to address several obstacles to successful energy-efficient appliance promotions:

- Utilities did not run significant promotional campaigns for energy-efficient lighting, equipment and appliances.
- Investor-owned utilities (IOUs) and municipal utilities offered rebates on different products, at different rebate levels and often at different times throughout the year.

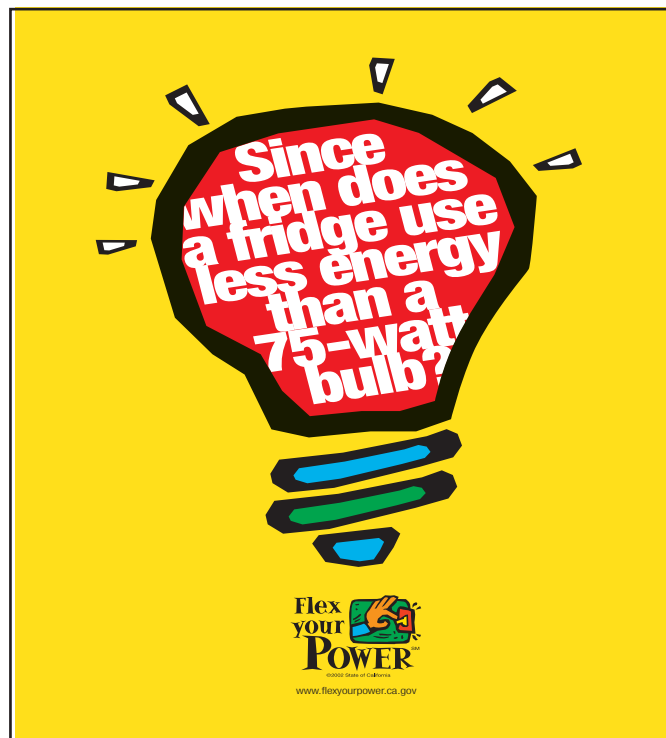
The task force meetings concluded that manufacturers would agree to participate in energy-efficient appliance promotions if they saw a long-term planning, strategy and coordination among key partners, utilities and the State.

By the August 18 launch, 578 appliance retail stores out of 752 retailers contacted (77 percent) had agreed to participate in Appliance Awareness Week.

- Retailers and manufacturers did not vigorously promote energy-efficient products in the State because of the patchwork of incentive programs.
- Advertising was impossible because there were different products and rebate levels within each media market.

Throughout the summer, Flex Your Power convened meetings with stakeholders, such as utilities, manufacturers and retailers, to identify what they could commit under this initiative, as well as what the State could offer to encourage manufacturers and retailers to participate. Stakeholders included, among others, utilities, manufacturers, retailers, Electric & Gas Industries Association (ECIA), the CEC, buying groups, the Natural Resources Defense Council (NRDC) and the CPUC. The U.S. Environmental Protection Agency's (EPA) ENERGY STAR® program provided on-going support throughout the entire campaign through their local energy efficiency consultants. EPA's support included technical guidance, development of content for many of the marking materials, coordination with ENERGY STAR® partners and program design and implementation assistance.

FIGURE 17. August 2001 Appliance Fact Card (front)



The task force meetings concluded that manufacturers would agree to participate if they saw a long-term planning, strategy and coordination among key partners, utilities and the State. The promotion developed by Flex Your Power included newspaper ads, retailer recruitment, collateral material and salesperson training, which made it far more likely that manufacturers would ship energy-efficient products to the California market.

Flex Your Power developed actions, to which retailers agreed to undertake in order to participate:

- ✓ Make best efforts to reduce energy use in their stores by as much as 20 percent.
- ✓ Sell ENERGY STAR®-qualified products.
- ✓ Train all sales associates on the benefits of efficient appliances using salesperson training cards and pocket cards written, printed and provided by Flex Your Power.
- ✓ Display and handout educational materials provided by Flex Your Power emphasizing the value of energy-efficient appliances along with valuable energy efficiency tips.

In addition, manufacturers and retailers were asked to conduct their own energy conservation/efficiency events and to participate in energy fairs hosted and run by state agencies, cities and counties.

FIGURE 18. August 2001 Appliance Fact Card (back)

How Much Can You Save?
The table below shows how much a typical ENERGY STAR® labeled appliance may save each year at various electric rates, compared to a new model, meeting minimum federal standards, or an existing 10-year-old appliance.

Estimated Annual Energy Savings With ENERGY STAR Labeled Appliances

Your cost (¢) per kiloWatt-hour (kWh)	Annual ENERGY STAR Savings		
	12¢	14¢	16¢
ENERGY STAR labeled appliances will save you these amounts compared to:			
Clothes washer (based on electric water heating)			
Buying a new, non-ENERGY STAR model	\$70	\$82	\$93
Your existing 10-year-old model	\$91	\$106	\$121
Refrigerator*			
Buying a new, non-ENERGY STAR model	\$7	\$8	\$9
Your existing 10-year-old model	\$43	\$50	\$57
Dishwasher (based on electric water heating)			
Buying a new, non-ENERGY STAR model	\$14	\$17	\$19
Your existing 10-year-old model	\$30	\$35	\$40

Clothes washer and Dishwasher savings estimates do not include water savings.
*Appliances that are more than 20 years old may use even more energy, and be even less efficient due to freon leaks and other wear. These calculations use the ENERGY STAR specification levels for refrigerators that took effect July 1, 2001.

Fast Facts About ENERGY STAR


How efficient are ENERGY STAR qualified products? ENERGY STAR labeled products are 10-50 percent more efficient than required under current federal standards, or typically in the top 20 percent of efficiency for a product category.

How much can you save? The average annual home energy bill in the U.S. is \$1,300. By choosing ENERGY STAR qualified products, the typical household can cut that bill by about 30 percent, or \$400.

A new ENERGY STAR labeled refrigerator uses half the electricity of a standard 10-year-old refrigerator. Most models use less energy than a 75-watt light bulb.

ENERGY STAR qualified clothes washers save more water in 1 year than most people drink in a lifetime!

Energy-saving features – like advanced compressors, insulation, and design – allow efficient appliances to operate more quietly.



The pilot promotion took place August 11 through 18. During the weeks prior to the Promotion, Flex Your Power recruited hundreds of appliance retailers, chain and independent, to participate through phone, letter and broadcast fax. The letters and faxes included a declaration statement and pledge forms asking appliance and home improvement product retailers to pledge to increase the sale of ENERGY STAR®-qualifying products by enhancing marketing and financial incentives for such products in exchange for promotional materials and advertising. Flex Your Power coordinated with advertising agency Grey

Grocery stores across the State distributed energy-conservation-tip bag stuffers developed by Flex Your Power throughout a 10-day period around Labor Day weekend 2001.

Worldwide to create the newspapers ads, which listed participating retailers in at least one of more than 30 newspaper ads throughout the State and promoted the value of energy-efficient products.

Rebates were available for most products involved in the promotion thanks to SB 5X legislation passed in response to the energy crisis.

Results

By the launch on August 18, 578 appliance retail stores out of 752 retailers contacted (77 percent) had agreed to participate in Appliance Awareness Week. In total, 4,900 employees were trained to sell energy-efficient products. Appliance Awareness Week received extensive TV, radio and print press coverage. Twelve legislators agreed to issue a press release and be available for press events.

Appliance Awareness Week was a huge success. Actual sales numbers are considered highly confidential to the appliance industry, but Flex Your Power was able to gather numbers from one of the major retailers and accumulate sales numbers from all manufacturers of ENERGY STAR® that compare the increase in the percentage of ENERGY STAR®-qualified appliance sales during the promotion with sales during the same period a year ago. The numbers indicated that:

- Sales of clothes washers rose 110 percent in California compared with a 50 percent increase nationally.

Flex Your Power designed a University/College Campus Initiative to take place during the fall and winter of 2001 in an effort to educate the hard-to-reach, yet critical college-age audience.

- Sales of refrigerators rose 50 percent in California compared with a 12 percent increase nationally.
- Sales of dishwashers rose 100 percent in California compared with a 50 percent increase nationally.

Phase 3 focused on energy efficiency, as demonstrated in the two initiatives above, and on making conservation behavior a way of life. Two initiatives employed during this phase to accomplish this goal were:

FIGURE 19. Grocery Store Bag Stuffer



Initiative #12: Grocery Store Customer Awareness

Flex Your Power asked grocery stores across the State to partner with Flex Your Power to help reach California residents and educate them about energy conservation. The California Grocer's Association answered the call and agreed to help Flex Your Power reach member grocers. A major component of that effort was the Grocery Store Customer Awareness week starting August

29, 2001, during which California grocers distributed energy-conservation-tip bag stuffers developed by Flex Your Power. Grocers contend that a member of virtually every household in the State visits a grocery store in a 10-day period. The flyers included information on energy-saving tips for home and office, as well as contact information on how to learn more about conservation tips and rebates during the hot, energy-vulnerable days.

Grocers were asked to pass out the conservation tips and agree to do their part to conserve energy by as much as 10 percent when compared with energy usage in 2000. Participating grocers received bag stuffers with energy conservation messages from the State at no cost to the grocer. Flex Your Power also distributed campaign window clings to grocery stores, so that their customers would know the stores were participating in the conservation effort.

Flex Your Power announced the Grocery Store Customer Awareness week in a press release on August 30, 2001. With every purchase throughout the 10-day period around Labor Day weekend 2001 (August 29 through September 8), customers received Flex Your Power flyers at checkout.

Flex Your Power staff monitored the participation of the stores. Volunteers visited participating stores in different counties to ensure that they received the materials, posted the window clings and were distributing the flyers.

Results

More than 3,000 grocery stores participated in the Grocery Store Customer Awareness Initiative and more than 13.5 million flyers were distributed. Ralph's, Vons, Safeway, Albertson's, Raley's and Food 4 Less grocery store chains joined with dozens of independent

grocery stores, as well as 7-Eleven stores and Smart & Final, to distribute the energy conservation tip flyers.

Initiative #13: University/College Campus Outreach

FIGURE 20. University Bookmark (version 1)



State, which represented a potential 2,316,019 students and 525,061 faculty/staff. The letter announced the college campus bookmark distribution and asked for their active participation in implementing the initiative. The mailing also included a “Declaration of Education” signature response form and sign-up sheets for student or staff interested in participating in the outreach.

Flex Your Power recognized that the State’s university/college community was another venue in which the campaign could spread the message of energy conservation. Flex Your Power designed a University/College Campus Initiative to take place during the fall and winter of 2001 in an effort to educate the hard-to-reach, yet critical college-age audience.

On September 21, 2001, Flex Your Power sent a letter of energy awareness to the director of student affairs and to the associated student president or the student activities coordinator at each of the 211 post-secondary campuses in the

Flex Your Power reached as many as 1.05 million people with the bookmarks.

Flex Your Power followed up the mailing with calls to campus directors, bookstore managers and head librarians to determine distribution strategies, collateral numbers and delivery dates for the bookmarks and tabletops. Through the calls, Flex Your Power decided to coordinate the bookmark distribution dates with periods of high traffic to libraries and bookstores. Flex Your Power also explained how the bookmarks should be distributed to students — by placing them on counters or placing one in each bag or book. A fax/flyer was sent to the bookstore manager and librarian if they wanted to see something in writing.

FIGURE 21. University Bookmark (version 2)



The first shipments were sent to campuses at the end of November. During the last two weeks of the fall semester/quarter, bookmarks were distributed to libraries; during the first two weeks of the winter semester/quarter, bookmarks were sent to bookstores. The bookmarks included the Flex Your Power logo, the Flex Your Power website address and five to 10 energy-saving tips.

Results

Flex Your Power distributed 1.05 million bookmarks and 1,000 bookmark holders to 151 campuses and 284 participating facilities — reaching as many as 1.05 million people.



Chapter 4:

Advertising and Media Campaign

Overview

Poll data in early February 2001 revealed that Californians grossly overestimated their current efforts to conserve energy.¹ Therefore it was imperative to Flex Your Power that the conservation advertising and media campaign effectively educate residents on ways to reduce energy use and urge them to shift energy use away from peak hours to avoid black-outs. The media campaign relied on three important components:

- Brand equity – A logo for the Flex Your Power campaign was created to bring a visual coherency to the campaign, serve as a shorthand message to remind Californians to conserve energy and, most importantly, build brand equity to give the campaign credibility when promoting initiatives in 2001/02 and so that use of the logo would be an incentive for partners.
- Message tone – The tone of the Flex Your Power messages avoided placing blame in order to more positively encourage an immediate response from the public. The messages communicated that it was in the power of the public to make a difference. Hence, the Flex Your Power title and the various taglines throughout each phase.
- Message frequency and diversity – The advertisements ran frequently so that every Californian either saw, heard or read and remembered the messages.

The Department of Consumer Affairs (DCA), which had received \$10 million under Senate Bill (SB) 5X to implement a public awareness program to reduce peak electricity usage, contracted with Grey Worldwide Advertising to design and launch a media campaign that could speak to both the general public and specific markets, focus on simple messages and use humorous, empowering and friendly tones to convey the messages.

Strategy and Concept

Given the severity of the energy crisis, it should be no surprise that the target audience of the media campaign included all energy consumers:

- Residential (primary target):
 - Adults 18+, including general market population, Hispanics, African-Americans and Asian-Americans
 - Children who play an influential role within households, demographically defined as 12 to 17 year olds

It was imperative that the advertising and media campaign effectively educate residents on ways to reduce energy use.

1. McKinsey & Co./EMC Inc., "Presentation of Results, California Statewide Survey," February 2001, EMC 00-2367.

The energy situation was such that the media campaign had to enlist the help of the public without blaming or offending it.

- Business:
 - Decision makers in medium and large businesses (100+ employees)
 - Decision makers in business with fewer than 100 employees

The initial communication objective of the media campaign was: to reach 95 percent of the adult population within the first four weeks; to reach two-thirds of the adult population with at least 20 messages over eight weeks; to reach 95 percent of the teen population over the first eight weeks; and to reach half of the teen population with at least 10 messages over eight weeks.

The Flex Your Power media effort was to be an integrated mix of TV, radio, print and outdoor advertisements targeted at different demographic groups in California. Grey Worldwide designated 12 market areas for television and 19 metro areas for radio, including Los Angeles, San Francisco, San Diego, Sacramento and Fresno. The media campaign planned to place more advertisements tailored to a Hispanic, African-American and Asian-American audience in markets where the population of each group was the highest.

General, regional, ethnic and community newspapers throughout California were selected for ad placements, as well as major highways in Los Angeles, San Francisco, Sacramento and San Diego for outdoor support or billboards. These four markets represented 90 percent of California's population.

From the earliest days of the energy crisis, the campaign carefully considered the tone of the advertisements for the media and all other aspects of the campaign. The energy situation was such that the media campaign had to enlist help from the public without blaming or offending it. Newspaper headlines throughout the winter of 2000 and 2001 repeatedly cited the dearth and closure of power plants, drought conditions and alleged abuses on the spot market as the causes of the energy crisis. By early 2001, the public was frustrated that it would have to not only suffer the consequences of the shortage, but also be forced to help solve the problem. And as mentioned, the public believed that it was already doing enough to conserve energy. Therefore, it was necessary to make the tone of the advertisements friendly and non-threatening, but with some attitude. It was important that all sectors – commercial, government, agriculture and residential – as well as all regions work together, without blame, for the higher goal of preventing blackouts.

Because there was such a heavy buy of TV spots and newspaper ads, Grey Worldwide created several advertisements for each medium so that the public would not become tired of the ads.

Winter Tips

Flex Your Power unveiled the “winter tips” series of TV and radio commercials on February 5, 2001. These ads ran in the general market, as well as in traditionally African-American, Asian-American, Hispanic, teen-dedicated and other community markets (e.g., gay/lesbian). All newspaper ads began running on March 5, 2001. The first round of ads conveyed information on the importance of reducing demand during peak hours and other ways to conserve, highlighting no-cost measures (conservation) that when done by many people could add up to considerable energy savings (such as shifting peak loads and unplugging unnecessary appliances). The tagline was, “And it’s not even hard.” The series included six TV and radio spots in English, three spots in the other languages, as well as some print ads, placed primarily in Hispanic, Chinese, Korean and Vietnamese newspa-

pers. The first round of ads ran through March 25, 2001, reaching 95 percent of California teens and adults.

Additionally, with this funding, DCA set up a “Flex Your Power” toll-free telephone line.

Television Advertising

Flex Your Power bought 300 30-second TV spots for the general adult market (40 percent of the spots were during the prime and premium prime times), 66 for the teenage market (50 percent of the spots were during youth-oriented prime time), 300 for the Hispanic adult market and 25 for the Asian-American adult market each week between February 5 and March 25, 2001.

Flex Your Power created six general-market TV commercials for the “winter tips” stage of the campaign. All six presented simple, no-cost measures that when done by many people could add up to considerable energy savings and help prevent rolling blackouts. The messages in the commercial spots included:

- ✓ Do your laundry after 7 p.m.
- ✓ Unplug unnecessary or unused appliances.
- ✓ Turn down heat when away from home and at night.
- ✓ Turn off lights and equipment when you leave a room, home or office.

Some ads highlighted the absurdity of some ways that people waste electricity (such as using a blow dryer to dry a head with no hair) to illustrate how almost all of the conservation measures were basically common sense. All of the ads ended with the line, “It’ll help us get through the power emergency. And it’s not even hard.”

Flex Your Power ran three TV advertisements in Spanish for Hispanic audiences and three in each Vietnamese, Chinese and Japanese for Asian-American audiences. The messages were similar to those of the general market commercials, but tailored to fit the target audience.

Radio Advertising

Flex Your Power bought 300 60-second radio spots for the general adult market, 300 for the Hispanic adult market and 25 for the Asian-American adult market. Because Californians spend the most time listening to the radio during morning and afternoon commutes, 60 percent of the general market, Hispanic and Asian-American radio ads fell during the morning and afternoon drive periods.

Flex Your Power created six general market radio advertisements for Phase 1. These presented the same messages with the same examples as the TV ads, while describing the scene verbally. The Hispanic and Asian-American radio commercials were also identical to the TV and general market ads.

Print Advertising

For print, Flex Your Power ran full-page ads each Sunday in general, Hispanic, Asian-American and community newspapers between March 5 and 25. The ads were similar across the languages, presenting five simple ways for Californians to reduce energy use:

- ✓ Lower the thermostat.

The six general market TV ads presented simple, no-cost measures that when done by many people could help prevent rolling blackouts.

A media research survey found a positive correlation between conservation behavior and campaign awareness.

- ✓ Don't use large appliances during peak hours.
- ✓ Unplug second refrigerators.
- ✓ Wash and dry only full loads and only during off-peak hours.
- ✓ Turn off lights and equipment when leaving a room, home or office.

Results

In March 2001, halfway through Phase 1 of the Flex Your Power media campaign, DCA commissioned an outside consultant to conduct a telephone survey of 411 Californians to assess consumers' attitudes, behaviors/behavioral intentions and awareness of Flex Your Power advertising early in the energy crisis. The research was not intended to be a measure of the effectiveness of the media campaign's first two months, because it takes time to alter basic behavior and attitudes. Instead, the survey was designed to provide a baseline and later measure whether the media campaign had broken through.² Key findings of this first wave of respondents in March 2001 included:

- While 62 percent believed conservation can solve the energy problem (up from 56 percent from the McKinsey poll in February 2001), 34 percent felt that conservation alone was not enough to address the power shortage.
- 74 percent reported they were committed to energy conservation (up from 56 percent in December 2000).
- 17 percent reported decreased energy usage in the home and 28 percent reported decreased energy usage in the workplace. Additionally, information on how to conserve was gathered primarily from television, followed by radio.
- 60 percent were aware of advertising or public service announcements promoting energy conservation.
- 40 percent described some element of the ads that could be associated with Flex Your Power.
- 66 percent of those who rated their level of commitment to conservation as high were aware of energy conservation ads.
- 87 percent of those who correctly recalled a component of Flex Your Power advertising had a high level of commitment to energy conservation.

FIGURE 1. Winter Tips Korean Print Ad

약간 낮추시면 많이 절약할 수 있습니다.

에너지 사용을 줄일 수 있는 다섯 가지 방법:

비교적 새로운 주택입니다.
온도계를 15도 낮추면 에너지 사용량이 50%까지 감소할 것입니다.
그리고는 겨울철에 에너지 절약 장비, 온도계 50도, 방화벽을 20도, 물
에 채워 제하는 온도계 60도로 맞추고 온수 탱크를 덮고 에너지는 온수 기
비입니다.

에너지 절약 팁:
에너지 사용량이 가장 많은 시간대에 에너지 사용을 최소화하십시오.
에너지 절약 시간은 오전 9시부터 오후 4시까지 그리고 오후 4시
이후 7시까지입니다. 이와 같은 에너지 절약 시간을 절약하여 에너지
인도가 같은 경우 가장 효율을 사용하여 사용합니다.

냉장고와 세탁기를 일주일 단위로 사용하지 않습니다.
냉장고 사용시간을 최대한 줄이십시오. 가장 에너지 소비량이 많은 물품 중의
한가지입니다. 냉각기 안에 냉각기 사용은 중단함으로써 연간 150달러
를 절약할 수 있습니다.

최대 사용은 최소 소비를 지킵시다.
냉각기 모두 사용하지 않아도 되는 경우, 냉장기나 건조기 또는 전기 세탁
기만 사용하지 않습니다. 그리고, 가능한 한 세탁기는 세탁 건조를 따로
달라주세요. 또한, 세탁 에너지 사용 시간을 줄여서 가장 효율을 사용
해야 한다는 것을 항상 기억해 주십시오.

에너지 절약, 새로운 에너지 절약
만 열에 전기를 바꾸고 소형 생활용품으로 바꾸십시오. 사용하지 않을 때는
멀리하고 기타 다른 제품과 전원을 꺼주십시오.

California Department of Consumer Affairs
Flex Your Power
에너지에 대한 더 자세한 정보를 위해 (800) 952-5219으로 전화하십시오. 웹사이트
나 방문하십시오. www.flexyourpower.ca.gov은 방문해 주십시오. 새로운
변동형 에너지 절약 프로그램에 가입하십시오.

2. C.A. Walker & Associates, Inc., "Energy Conservation Advertising Awareness, Wave I," tabulated April 2001.

The results indicated that Californians not only were more committed to energy conservation in April 2001 than in December 2000, nearly 1-in-5 (17 percent) reported decreased energy usage in the home, and more than 1-in-4 (28 percent) reported decreased energy usage in the workplace. The study also suggested a positive correlation between conservation behavior and campaign awareness. Those who were aware of Flex Your Power were stronger energy conservation advocates and were doing more of the energy-saving steps highlighted in the ads, in comparison to consumers who were unaware of the campaign. Those who correctly recalled specifics of the campaign tended to be committed to energy conservation and were more likely to have strong future intent to take energy conservation steps. In conclusion, the results showed that the Flex Your Power media campaign was succeeding in educating Californians about how to conserve energy, and that repeated exposure to the campaign messages was needed to affect behavior.

The media campaign played an important role in supporting and providing a context for the Flex Your Power initiatives.

Late Spring to Summer 2001

The campaign resumed in the first week of May with warm weather conservation tips. During the late spring, early summer ad campaign, Flex Your Power had to effectively drive home the conservation message so that California could avoid blackouts during the highest energy use months of summer when electricity usage is typically the greatest as a result of high air conditioning use. Polls indicated that most Californians did not understand the concept of “peak” (when statewide use of electricity was at its highest level producing the greatest potential for forced outages). During winter months, electricity use typically peaked between 4 and 7 p.m. During summer months, statewide electricity use peaked during the mid- to late-afternoon hours, as a result of high air conditioning use. In addition, summer months typically represented the highest statewide use of electricity compared with the rest of the year. When the media campaign resumed in the late spring of 2001, Flex Your Power shifted its advertising and media campaign to emphasize two primary messages:

- Reduce energy use during peak hours. Conservation at peak hours was the key to avoid potential blackouts during the summer.
- Adjust air conditioning thermostat to 85 degrees F while away and 78 degrees F while at home.

Additionally, during the second stage of ads, Flex Your Power introduced and promoted the State’s 20/20 rebate program.

As mentioned above, the overall campaign was entering Phase 2 at this point, building momentum by assembling and announcing partnerships to conserve energy. The local government, business, nonprofit and other initiatives directed at residential audiences were rolled out during the late spring/early summer and the media campaign played an important role in supporting and providing a context for those initiatives. The ads reinforced the commonality of the problem at hand and the need for all Californians to work together to solve the problem. The tagline for the advertisements was, “Together we can do this.”

As in the winter campaign, DCA bought a similarly heavy buy of TV, radio and print spots for the summer months to continue to educate and build the brand: TV and radio spots were aired in general and ethnic markets with an average reach to consumer of seven times per week. Flex Your Power added 150 radio spots on traffic report stations in Los Angeles and 125 in other markets, as well as print and radio ads in African-American media sources. For print, Flex Your Power ran full-page ads each Sunday in general market newspapers between June and July. In Hispanic, Asian-American and community newspapers,

The messages of the ads tried to combat the faulty perception of powerlessness to do anything about the energy crisis.

Flex Your Power ran full-page ads in June and half-page ads in mid-May, July and August. Inserts with conservation messages were included where appropriate.

Television Advertising

Beginning on May 13, 2001, Flex Your Power ran eight commercials that requested help from every resident and introduced key summer tips and messages, such as:

- ✓ Teenagers use more electricity per person than any other age group.
- ✓ Residents might qualify for the State's 20/20 rebate. The ad stated, "Check with your local electric utility to see if you could be saving 20 percent on your summer bills."

One commercial applauded California residents for their conservation efforts thus far and concluded, "Keep up the good work." Again, it was important to combat the faulty perception of powerlessness to do anything about the energy crisis. Others again used humor to convey important messages.

Grey Worldwide created two new Hispanic commercials, which mirrored the general market ads. There were no new Asian-American market TV commercials in this stage of the ad campaign.

Radio Advertising

Beginning in May, Flex Your Power ran six new general market radio ads that conveyed the top three conservation tips for the summer months: raise air conditioner temperature, shift electricity use to off-peak hours and weatherize buildings. Like the television ads, two of the ads similarly promoted the 20/20 rebate program, reaching 84 percent of California households weekly.

Five new ads targeted the Hispanic community. Three of the five asked the community to "Join the Team" to reduce energy and prevent blackouts, one focused specifically on reducing office electricity use through simple conservation measures and all five mentioned the 20/20 rebates.

Three new commercials targeted the Asian-American community. These included a public service announcement about conservation, a summer tips ad and a demand shift ad.

Flex Your Power introduced two African-American market radio ads in the summer ad campaign. The commercials featured popular comedic radio and TV personality Don "D.C." Curry. Curry talked about changing his ways to conserve more energy and also provided summer tips.

Print Advertising

Two new general market print ads were added during the second stage. The first reminded Californians to raise air conditioner temperatures and use natural cooling measures, such as pulling the drapes closed, to keep the cooler air inside. As part of the agreement with appliance manufacturers and retailers, Flex Your Power ran a full-page ad in newspapers statewide announcing the first Energy-Efficient Appliances week in August. The ads listed participating retailers in at least one of more than 30 newspaper ads. The ads promoted the awareness week and the value of energy-efficient products.

In African-American newspapers, Flex Your Power ads again featured comedian Don “D.C.” Curry recommending that Californians turn down thermostats and use appliances only during off-peak hours. In Hispanic newspapers, two ads focused on shifting electrical use to off-peak hours and included a short blurb about the 20/20 rebate program. In Asian-American newspapers, one ad stressed the importance of everyone working together to solve the crisis and another reminded Californians about ways to reduce energy use.

FIGURE 2. Drapes General Market Print Ad



As part of the agreement with appliance manufacturers and retailers, Flex Your Power ran a full-page ad in newspapers statewide announcing the first Energy Efficient Appliances Promotion in August.

FIGURE 3. Anaheim Outdoor Board



Phase 3 efficiency ads were introduced in the late summer of 2001. In July and August 2001, the California Energy Commission (CEC) targeted the business community with four ads in business journals across the State. Two ads in July announced the availability of \$400 million in incentives to California businesses to reduce electricity use. Two ads in August announced that \$21 million was available to businesses for cool-roof installations.

Phase 3 efficiency ads were introduced in the late summer of 2001. In July and August 2001, the California Energy Commission (CEC) targeted the business community with four ads in business journals across

FIGURE 4. Speedometer Outdoor Board



Billboards

Three billboards were run in 2001: one asking residents to use their fan, rather than air conditioning during the summer, another telling drivers to keep their home and office air conditioning at

78 degrees F and the third reminding Californians how easy it is to save energy.

After the September 11 terrorist attacks, “free” news media about the energy shortage fell dramatically.

Results

California did not experience any blackouts during the summer of 2001. The continuous presence of TV and radio ads was a significant factor in motivating and informing consumers of the need to conserve energy. They also provided a widely recognized and positive face to the Flex Your Power campaign, and increasingly made enlisting the support of others a successful enterprise.

Since the campaign began in February 2001, 83 percent of Californians reported having changed their energy use to conserve more. Monthly conservation figures support this behavior change. Total statewide monthly peak demand was reduced by an average of 9.2 percent from July 2001 to September 2001. Results from the 20/20 rebate program indicated that two out of every five residential customers conserved enough electricity to qualify for the rebate, reducing their energy bills by 30 to 35 percent.

Winter 2001/02 Through 2002

California’s situation in the winter of 2001/02 presented significant challenges to the media campaign. Because the State did not suffer blackouts during the summer of 2001, many Californians believed the crisis was over. And after the September 11 terrorist attacks, “free” news media about the energy shortage fell dramatically. Yet the State’s energy supply was still a potential major problem. Flex Your Power had to keep Californians conserving to avoid blackouts particularly in the vulnerable San Francisco Bay Area during the winter of 2001/02 and through the summer of 2002. Some of the advertisements developed during the summer months continued to run through September and October 2001. As the winter approached, the media campaign presented “winter tips” and messages that reflected the third, efficiency phase of the campaign. The messages were:

- The crisis is not over. California has to keep up its conservation efforts to avoid blackouts in winter 2001/02 and beyond. The message was, “Let’s keep flexing our power. It’s working.”
- Conservation and efficiency should be a long-term habit. The tagline became, “Conservation, it’s a way of life.”

On April 29, 2002, DCA and Grey Worldwide launched a new \$35 million spring/summer 2002 ad campaign, which for the first time included cable outlets directed toward African-American, Hispanic and Asian-American audiences. The California Public Utilities Commission (CPUC) directed an additional \$8 million from the public goods charge to Flex Your Power to develop TV, radio and print ads that featured energy efficiency to the general market and supported the appliance, home improvement promotions. TV, radio and print ads were bought at similar high quantities as the two earlier advertising stages so that each week the average consumer heard or saw energy conservation messages seven times.

Television Advertising

After a summer free of blackouts, Flex Your Power began running an ad in mid-September 2001 that congratulated Californians for successfully reducing their energy use. The commercial ran yearround.

In the winter of 2001/02, Flex Your Power 30-second TV ads designed to convey both winter tips, such as programmable thermostats and winterizing a home, and the key message of Phase 3: conservation as a way of life. In an ad entitled, “Guess Who’s Watching,” which featured a father and son, Flex Your Power illustrated how conservation behavior

can be passed on from one generation to the next. In another charming ad, a husband, frantically dashing around his apartment before taking his wife, who is in labor, to the hospital, remembers to turn off the lights. Flex Your Power ran some of these ads in Asian languages.

FIGURE 5. African-American Print Ad



Ten new general market ads were unveiled in the spring and summer of 2002. The messages focused on both conservation, reflecting the tips conveyed during the summer of 2001 and produced by DCA, and efficiency funded by the CPUC. The conservation ads highlighted people, usually with a humorous tone, reducing electricity at peak hours and shutting off lights and equipment when leaving offices. One ad showed an orangutan turning off the lights, again emphasizing how easy conserving energy can be. The efficiency ads highlighted the

benefits of ENERGY STAR® products, such as washing machines and ceiling fans. Five new Hispanic and three new Asian-American ads conveyed similar messages.

Radio Advertising

Ten new general radio ads were unveiled during the spring and summer of 2002, which roughly mirrored those released for television and produced by both DCA and CPUC. Six of the eight new Hispanic ads were lighthearted songs about conservation and efficiency in various music styles including bolero, tango, flamenco, mariachi, salsa and the blues. Four new African-American ads were released, again featuring comedian Don “D.C.” Curry, all focused on conservation and funded by DCA. One of the 10 new ads targeted to Asian-American audiences was produced by CPUC and focused on energy efficiency.

FIGURE 6. Hispanic Print Ad



The 10 new general market ads in the spring and summer of 2002 focused on both conservation, reflecting the tips conveyed during the summer of 2001 and produced by DCA, and efficiency funded by the CPUC.

Your home's summer forecast: Lows in the \$20's. Highs in the \$400's. Rebates, that is.

There's a lot you can do at home to beat the summer heat. And you can cut energy and money while doing it. Visit one of the programs listed below to find up-to-date energy efficient products to keep your home cool this summer. Find out how Danco Direct qualified products like programmable thermostats, ceiling fans, clothes washers, compact fluorescent lights, and dishwasher can mean more savings on your utility bills. Also, when you buy many of these qualified products, you could earn rebates from your local utility company. Like \$20 on a programmable thermostat. Or \$17 on a clothes washer. And replacing an old, inefficient boiler or furnace with a new, energy efficient boiler could net you a rebate of up to \$625. There's nothing like finding a little extra cash in your own home.

Saving energy. It's a way of life.

Interested in finding the program that applies to you? Click on one of the product program tabs to see a complete list of participating products and rebates. **Don't see what you're looking for?** Click on the "More Programs" link to see a complete list of programs.

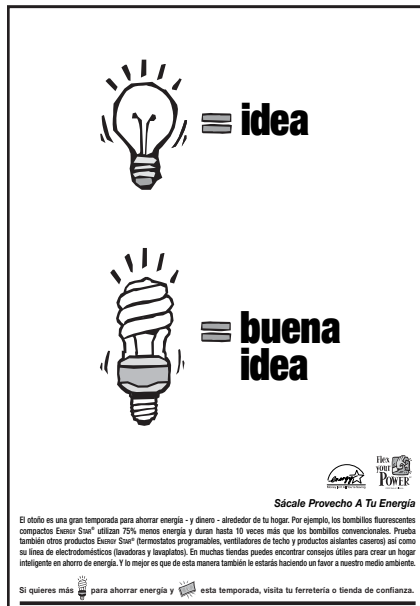
Smart Thermostat \$20 rebate Smart Thermostat 800-451-7462 www.smarthermostat.com	Smart Thermostat \$20 rebate Smart Thermostat 800-451-7462 www.smarthermostat.com	Smart Thermostat \$20 rebate Smart Thermostat 800-451-7462 www.smarthermostat.com	Smart Thermostat \$20 rebate Smart Thermostat 800-451-7462 www.smarthermostat.com
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Print Advertising

FIGURE 8. August 2002 English Energy Efficiency Print Ad

[illegible]

FIGURE 9. October 2002 Hispanic Energy Efficiency Print Ad



In August 2002 and October 2002, Flex Your Power ran two other joint home improvement and appliance weeks to promote long-term efficiency. Ads were once again ran in newspapers, TV and radio, and followed the same format of earlier promotions including collateral material, salesperson training, etc., The focus of the August advertising was appliances and high-lighted washing machines to make the save water/save energy partnerships with water agencies.

Hispanic and Asian-American newspapers ran five ads on reducing peak demand by using large appliances after 7 p.m. These ads were funded by DCA. African-American newspapers ran two ads with Don "D.C." Curry that conveyed similar messages.

Billboards

Two billboards advertisements ran in 2002: one reminding Californians to use appliances, such as washing machines, after 7 p.m. and the other

reminding Californians to turn off office equipment at the end of a day.

Results

In the winter of 2001/02, DCA commissioned a second wave of telephone research, "Wave II," the second part of the survey to measure the effectiveness of the media campaign.³ "Wave I," described earlier in the chapter, was conducted in April 2001. The second wave involved an interview with a random sample of 406 California residents who had sole or shared responsibility in the payment of utility bills. Important survey findings included:

In the winter of 2001/02, DCA conducted a media awareness survey sent to more than 400 Californians and found that:

- Positive commitment to energy conservation had risen to 81 percent.
- The belief that conservation could solve California's energy problems increased to 75 percent.
- Awareness of any advertising or messages related to the electricity crisis was 67 percent.
- The percentage who correctly played back descriptions of the Flex Your Power campaign also increased significantly from 35 percent to 53 percent of those aware of any conservation messages.
- Those aware of the Flex Your Power campaign showed the following significant difference from others in the sample:
 - A higher percentage claimed to have used less energy than they did in January 2001.

A positive commitment to energy conservation rose from 74 percent to 81 percent from April to December 2001.

3. C.A. Walker & Associates, Inc., "Energy Conservation Advertising Awareness, Wave II," tabulated January 2002.

Significantly more of those polled who correctly described the ads were likely to agree that conservation can solve California's energy problems than those people who did not remember the ads.

- Significantly more of them had very frequently done six or more of the 14 residential conservation steps.
- A higher proportion were likely to do 11 or more of the residential conservation steps in the next year.
- Significantly more of them were likely to agree that conservation can solve California's energy problems.
- They were more likely to credit Californians' conservation efforts as the reason for the resolution of the power shortage.
- They were more likely to cite altruistic, rather than financial reasons for their efforts to conserve.
- They were more aware of the 20/20 rebate program and held a more favorable opinion of it.



Chapter 5:

California's Energy Situation Leading Into 2002

Overview

Through the conservation efforts of millions of consumers and thousands of businesses, California sailed through the summer of 2001 without a blackout. More than 3 million consumers saved 20 percent on their energy bills by reducing consumption 20 percent or more. Despite the successes, California's energy outlook was still tight going into 2002. There were a series of factors that could contribute to energy shortages and even possibly blackouts in the 2001/02 winter months and during the summer of 2002. Alternatively, the situation was not entirely hopeless because there were also a number of factors which lessened the risks of an energy shortage in 2002, including increased generation and installed efficiencies from the prior year. Additionally, public understanding of the issue of conservation and of the Flex Your Power campaign helped the campaign more easily continue its education and outreach initiatives throughout 2002.

No one wanted to take a chance, so the governor's office in the late fall of 2001 asked Flex Your Power to put together a conservation/efficiency campaign for 2002, and to continue to help build a secure energy future through energy efficiency.

Economic recession and the September 11 terrorist attacks diverted the public's attention away from energy conservation and efficiency efforts.

Factors Contributing to a Potential Energy Crunch in 2002

- **Declining Public Interest and a Sense That the "Energy Crisis" Was Over:** The public's concern regarding the energy crisis began to fade after the summer of 2001. As Table 5-1 illustrates, an advertising poll conducted in March 2001 revealed that 59 percent of those polled believed that the energy crisis was the most important issue facing California. In November/December 2001, the poll revealed that only 35 percent felt the same way and 49 percent believed that the energy shortage no longer existed and that the crisis was over. Only half of those polled thought that blackouts were possible in the winter.

In the past, the California ISO could count on an average of 2,800 MW in interruptible loads.

TABLE 1-1. Most Important Issues Facing California, Comparison of Wave I and Wave II Responses

Issue	Wave I (3/13-3/18/01) %	Wave II (11/26-12/3/01) %
Energy/energy crisis	59	35*
Education	20	20
Economy	17	31*
Social issues (e.g., crime, youth gangs)	16	12
Immigration/population	10	16*
Government	8	6
Gas	7	3*
Traffic/transportation	6	9
Housing	5	8^
Environmental issues	2	8*
Terrorism	N/A	3*
Total # of Respondents	411	406

* Significantly different from Wave I at the 95 percent confidence level.

^ Significantly different from Wave I at the 90 percent confidence level.

Source: C.A. Walker & Associates, Inc., "Grey DCA Energy Study Wave II," Tabulated January 2002.

- **Declining News Attention:** The country's economic recession and the September 11 terrorist attacks took over and dominated the press. These events effectively diverted the public's attention away from energy conservation and efficiency efforts and knocked news coverage of the campaign off the front pages.
- **20/20:** This popular program would not be available to the business sector as an incentive to cut energy usage.
- **Unstable Energy Market and Generation Offline due to Unplanned and Planned Repairs:** California's energy plants are aging. Hydro and thermal generation plants, which account for 62 percent of total generation and were scheduled to produce between 4,000 and 8,000 MW, were to be offline from October 2001 to May 2002.¹ Unplanned generation power offline as a result of mechanical failures or problems associated with aging equipment or even potential market manipulation were also likely possibilities.
- **Shortage of Interruptible Loads:** The California Independent System Operator (ISO) relies on interruptible load programs to shed demand in emergency situations. Interruptible load programs are contractual arrangements between consumers, usually commercial and industrial, and the California ISO, under which the system operator can either directly interrupt a consumer's load at seasonal peak times or request the consumer to take action itself. In the past, the California ISO could count on an average of 2,800 MW in interruptible loads. But frequent interruptions led to a decline in customer interest in the programs. The number of MW available for 2002 was uncertain, especially because the interruptible load programs offered an opt-out option in November 2001.²
- **Regional Energy Shortages:** A couple of regions in the State presented specific energy challenges during the winter of 2001/02. For instance, the San Francisco region had energy supply constraints. According to the California ISO, "San Francisco tends to be a winter peaking area," with loads reaching as high as 950 MW.³ Although the

1. Graves, "CAISO 2001/02 Winter Assessment and Summer 2001 Post-Season Summary," Oct. 8, 2001, p. 9.

2. Ibid, p. 18.

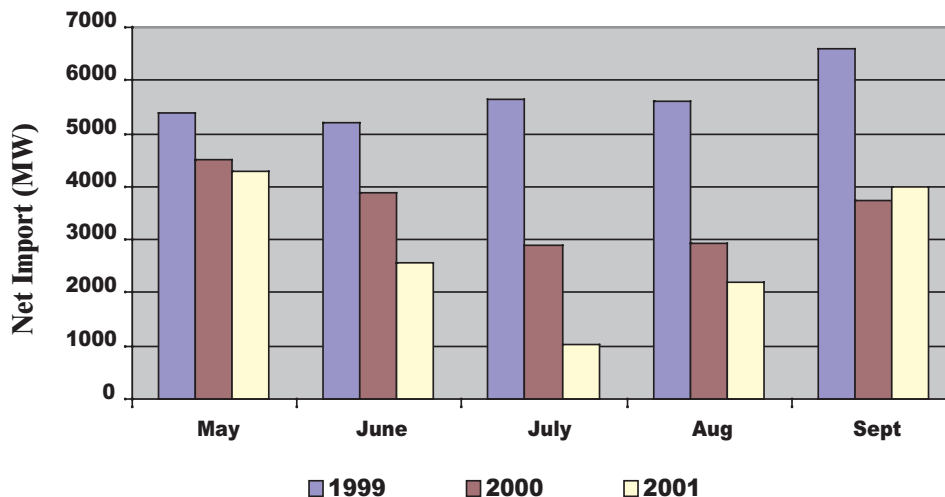
3. Ibid, p. 20.

region benefited in 2000 from two transmission/generation upgrades, transmission lines to the San Francisco Peninsula were weak and the region primarily depended on local generation at the Hunters Point and Potrero Power plants. In the winter of 2001/02, these plants had complications: Hunters Point had a scheduled 10-week maintenance outage of 160 MW, and four of San Francisco's combustion turbines had exhausted or severely limited their allowable run-times, putting 50 MW offline for each turbine.⁴

- **Drought Conditions:** The drought conditions experienced in late 2000 grew worse in 2001 and no one, of course, could forecast with certainty the situation in 2002. Low snowpack and reservoir levels meant that hydropower, which typically accounts for 28 percent of total generation in California, and net imports, comprised in part from hydropower, would again be low for the winter of 2001/02 and the spring and summer of 2002. It was estimated that 30 percent of the country faced drought conditions in 2002.⁵ Based on low reservoir levels and hydropower outages, the California ISO predicted 4,500 MW of total limitations on hydropower from October 2001 through May 2002. In May 2002, the California ISO predicted that only 4,000 MW of hydropower would be available.⁶
- **Regional Growth:** The western United States region continued to increase in population, without a similar increase in power generation plant construction. The outpacing of energy demand over supply in the western regions, as well as decreased hydropower, threatened a continued decline in net imports through 2002 as had begun in 2000 (see Figure 5-1.).

The drought conditions experienced in late 2000 grew worse in 2001 and continued through 2002.

FIGURE 1. California ISO Historical Net Import During Seasonal Peak



Source: Kevin Graves/Loads & Resource Group, "CAISO 2001/02 Winter Assessment and Summer 2001 Post-Season Summary," Oct. 8, 2001, p. 11.

4. Ibid, p. 20.

5. Christina Ward, "Thirty Percent of U.S. Suffering from Drought," DisasterRelief.org, March 8, 2002. Accessed online at www.disasterrelief.org/Disasters/020380USdrought/ on Dec. 17, 2002.

6. Ibid, p. 9.

The campaign estimated that the installed efficiencies through 2001 and the first half of 2002 would reduce at least 1,350 MW of demand at peak hours.

- **Potential “Heat Storm”:** Although 2001 overall was the 25th hottest summer out of the previous 107 years, California did not sustain a “heat storm” — a statewide, or western regional heat wave of four or more days during 2001. California’s ability to maintain a high degree of conservation in the face of such a storm was untested. Indeed, a variety of factors, including a heat storm occurred in the summer of 2002, triggering Stage 2 and 3 alerts in mid-July 2002.
- **Funding for Efficiency Programs Will Be Substantially Lower:** There was no replacement for Senate Bill (SB) 5X and Assembly Bill (AB) 29X funding. Additionally, through Executive Orders D-48-01 and D-49-01 in November 2001, Gov. Gray Davis directed every department and agency to suspend the allocation of specified expenditures, in addition to instituting hiring and spending freezes until the Legislature convened in an extraordinary session. Funding for the State’s energy conservation and efficiency campaign changed in the ways highlighted in Table 5-2.

TABLE 1-2. Funding Cuts for Energy Campaign Programs

Entity	Program	Funding Received	Money Spent by November 2001	Amount Reverted to General Fund
California Conservation Corps (CCC)	Dissemination of energy conservation information	\$20 million under AB 5X	\$16.1 million	Remaining \$3.2 million
California Energy Commission (CEC)	Agricultural efficiency, conservation and incentive programs	\$86.3 million under SB 5X	\$56.9 million	Remaining \$29.4 million
CEC	Expedite power plant applications	\$3 million under SB 5X	None	\$3 million
California Alternative Energy and Advanced Transportation Financing Authority	Establish the Renewable Energy Program	\$25 million under AB 29X	Minimal	Remaining \$24.9 million
California Public Utilities Commission (CPUC)	Supplement public goods charge funding for the CARE program	\$100 million	\$14 million	Remaining \$83.8 million
State and Consumer Services Agency (SCSA)	Program to teach school children about energy efficiency in the home and at school	\$7 million	N/A	\$2 million (back to CEC)

Factors That Could Help Alleviate an Energy Crunch in 2002

- **Permanent Energy Reduction Through Installed Efficiencies:** Energy-efficient retrofits, the purchase of new energy-efficient equipment, appliances and lighting in 2001 created long-term energy reduction benefits that would help lower energy demand for 2002. The campaign estimated that the installed efficiencies through 2001 and the first half of 2002 would reduce at least 1,350 MW of demand at peak hours.
- **Economic Slowdown:** The slowdown in California’s economy during late 2001 and throughout 2002 could help relieve some of the pressure on energy demand.

- **Greater Public Awareness of the Importance of Energy Conservation:** As mentioned earlier, 62 percent of California residents polled in March 2001 believed that conservation could solve the State's energy crisis. In December 2001, that figure had increased to 75 percent. And the number of residents polled who believed they had made a positive commitment to energy conservation rose from 74 to 81 percent between March and December 2001.

Between March and December, the number of respondents who practiced 10 of the 14 specific conservation behaviors listed in the poll increased, as did the proportion of respondents who had always or nearly always performed 11 or more of the 14 conservation actions.⁷ Flex Your Power expected that in 2002 it would have an easier time convincing the public that conservation could alleviate the energy crunch.

- **Greater Public Awareness of Campaign:** The public's awareness of Flex Your Power's advertisements, logo and campaign messages reached 67 percent of Californians by December 2001. Of those who were aware of advertisements promoting energy conservation, 53 percent correctly described some element of the ads that could be associated with Flex Your Power. The December 2001 poll also revealed that there was a positive correlation between brand recognition and conservation behavior. More importantly, those aware of the campaign in December 2001 showed the following differences from others in the sample:

- A higher percentage of respondents claimed to have used less energy than they did in January 2001.
- Significantly more respondents had very frequently done six or more of the 14 residential conservation steps.
- A higher proportion of respondents were very likely to do 11 or more of the residential conservation steps in the next year.
- Significantly more respondents were likely to agree that conservation can solve California's energy problems.
- Respondents were more likely to credit Californians' conservation efforts as the reason for the resolution of the power shortage.
- Respondents were more likely to cite altruistic, rather than financial, reasons for their efforts to conserve.
- Respondents were more aware of the 20/20 rebate program and held a more favorable opinion of it.⁸

- **New Power Plants:** Power plants that were scheduled to be online for 2001 and 2002 provided additional resources. By the summer of 2002, 2,397 MW were online.⁹
- **Financial Motives in Place:** Californians could be expected to continue to conserve out of fear of high energy bills. The December 2001 poll found that 65 percent of respondents gave the answer "fear of higher rates" as the reason they conserved in 2001.¹⁰

By December 2001, the public's awareness of Flex Your Power reached 67 percent.

7. C.A. Walker & Associates, Inc., "Energy Conservation Advertising Awareness, Wave II," tabulated January 2002.

8. Ibid.

9. CEC, "Power Plant Project Status: California Energy Commission — Energy Facility Status," accessed online at www.energy.ca.gov/sitingcases/status_all_projects.html on Dec. 17, 2002.

10. C.A. Walker, "Energy Conservation Advertising Awareness, Wave II," tabulated January 2002.



Chapter 6:

Flex Your Power Initiatives: Changes in Late 2001 to 2002

Overview

Flex Your Power's objective in 2002 was to build upon the success of both the conservation and the efficiency elements of the 2001 campaign. Flex Your Power planned to do this in five key ways:

1. By organizing more energy efficiency product promotions, continuing to promote energy efficiency programs and marketing new conservation and efficiency programs
2. By altering the messages and strategies of some initiatives so that they focused on energy efficiency
3. By continuing to build relationships with energy coordinators in all sectors
4. By publicly recognizing and awarding the organizations that made extraordinary energy conservation and efficiency efforts in 2001
5. By recording success stories of energy conservation and efficiency programs undertaken by various sectors in 2001, and by sharing these via best practice guides and case studies

This chapter describes the new developments and changes to existing projects, which kept awareness of the need to continue saving energy high and helped "lock in" savings from 2001.

Ongoing Initiatives

Flex Your Power, having recruited energy coordinators in 1,332 businesses, 565 local governments, 261 water districts, 566 nonprofit organizations (NPOs) and community-based organizations (CBOs) and other key contacts, concentrated on keeping their partners statewide focused on energy conservation and efficiency.

Declarations and commitments to cut energy use by state goals or take specific actions were not part of the 2002 campaign. Rather, through regular phone, mail and e-mail communications, coordinators were educated about a range of energy-savings programs and encouraged to participate.

Flex Your Power's objective in 2002 was to build upon the success of the conservation and efficiency elements of the 2001 campaign.

Nearly all local governments said they were going to continue to conserve at rates of 50 percent or more than 2001 levels.

- **Energy-Efficient Communities/Local Government:** All local governments that had not yet appointed energy coordinators were sent letters, articulating why energy efficiency continued to be relevant and encouraging their participation. All local governments that had become partners were thanked for their efforts to get California through 2001 and encouraged to continue to do their part.

Overall goals for local governments were expanded to include:

- Continue to provide information and resources to energy coordinators to assist them with public outreach. Lobby signs, posters and brochures remained a part of the campaign.
- Continue to help local governments lock-in and continue implementation of key energy conservation measures.
- Highlight, more prominently, long-term energy efficiency actions that local governments should take.
- Continue to establish a long-term network of all local government contacts and provide regular e-mail updates of success stories. A key piece of this goal was to serve as a liaison for all energy coordinators, providing information on and a link to state agencies, such as the California Energy Commission's (CEC) Cool Roof and Energy Partnership programs, as well as existing rebate programs of investor-owned utilities (IOUs) and municipal utilities.

All local governments were surveyed as to their intention to continue energy conservation — and at what rate — through 2002. Nearly all said they were going to continue to conserve at rates of 50 percent or more than 2001 levels.

- **Save Water — Save Energy:** Flex Your Power and the California Water Awareness Campaign Steering Committee of the California Urban Water Conservation Council (CUWCC) established a working group to jointly promote their Water Awareness Campaign and the Flex Your Power campaign's appliance promotion, which would promote water and energy savings. The parties outlined the following strategy:
 - CUWCC and the Association of California Water Agencies (ACWA) sent a joint letter to members with a short survey to determine which agencies offer appliance rebates. The letter explained the opportunity and timing of the August promotion.
 - Once a master list of rebates was established (note: 340 rebates were identified), Flex Your Power established a link to the CUWCC and ACWA website for more information on how to save water and a listing of those water agencies that offer appliance rebates with links to each agency.
 - Flex Your Power incorporated the save water and water audit information and appliance rebates from local water agencies into its promotional material/ads.
 - The water agencies would begin integrating their rebate programs and coordinating their promotions with the power utilities.

Participating water agencies were sent an e-mail to let them know:

- That an energy efficiency promotion was happening on August 10, 2002
- What collateral they could expect to receive
- When Flex Your Power would run ads
- How they could coordinate their own marketing

The e-mail was followed up with a fax consisting of a formal announcement of the Summer Energy Efficiency Days initiative and sign-up forms.

Flex Your Power distributed its Consumer Brochure to the water agencies so that they could distribute the materials in early August at places such as the water agencies' bill payment desks and customer service centers.

- **NPOs/CBOs:** Flex Your Power reinitiated its viral e-mail campaign to all non-profit energy coordinators. The objective was to reach 1 million Californians with a “winterized” energy conservation and efficiency message by distributing educational collateral to the general public. The team no longer tried to actively recruit new CBO partners. Instead, Flex Your Power built relationships with established nonprofit energy coordinators and asked them to include a Flex Your Power-drafted winter message in their newsletters or post the winter message on their websites. Flex Your Power made the messages available in the English, Russian, Chinese, Hmong, Vietnamese, Korean and Spanish languages. Flex Your Power also created a flyer with winter-relevant energy conservation and efficiency information to be displayed where the public could see it.
- FIGURE 1. NPO/CBO Winter Energy Conservation Message**
- Set your thermostat to 68 degrees when you're home and 55 degrees at night, or off when you're away.

Use Your Appliances Wisely


 - Turn off appliances, lights and equipment when not in use.
 - To help prevent electricity outages, **do not run large appliances** between 5 a.m. - 9 a.m. and 4 p.m. - 7 p.m.
 - Do your laundry efficiently by using the warm or cold water setting for washing your clothes and **always** use cold water to rinse clothes.
 - Conserve energy by running your dishwasher only when it is fully loaded, and turn off the dry cycle to allow dishes to air dry instead.

Inexpensive Energy Solutions

 - Choose **Energy Star**® products. Purchase compact fluorescent light bulbs. They use a quarter of the energy and last five to ten times longer than conventional light bulbs.
 - Reduce your hot water temperature. Set your water heater to the “normal” setting or 120 degrees unless the owner's manual for your dishwasher requires a higher setting.
 - Replace furnace filters once a month. Dirty filters restrict airflow and increase energy use. Keep your furnace clean, lubricated and properly adjusted.
 - Install low-flow showerheads. You'll be surprised how much this simple device can cut your hot water costs.
 - Wrap your hot water tank with jacket insulation. If your water heater is gas, be sure to leave the air intake vent uncovered.

Eliminate Wasted Energy

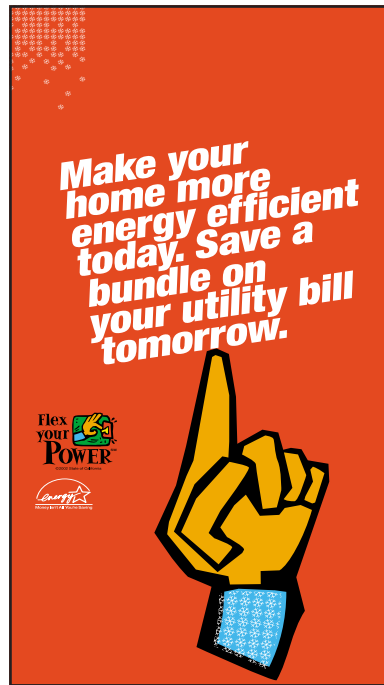
 - Turn off lights in unoccupied rooms.
 - Unplug electronic devices and chargers when they're not in use.
 - Close the damper on your fireplace when you're not using it.
 - Unplug that spare refrigerator in the garage if you don't really need it.

Check out www.flexyourpower.ca.gov for more information and ways to save money!
- 

Flex Your Power convinced all the IOUs and major municipal utilities to offer consistent rebates on the same products and jointly promote a residential rebate program with Flex Your Power.

Flex Your Power provided a second efficiency promotion to remind Californians that conservation was still important during the winter, and to promote home improvement efficiency products.

FIGURE 2. Winter Home Improvement Promotion Brochure (front)



This pilot home improvement promotion took place the week of January 19-27, 2002, and focused specifically on energy-efficient home improvement and weatherization products to residential customers. Hardware and home improvement retailers showcased ENERGY STAR®-qualified compact fluorescent bulbs and/or fixtures, caulking, weather stripping, programmable thermostats and windows, furnace filters, high-efficiency furnaces, insulation and other home improvement products designed to help consumers reduce winter electricity use and costs. Unlike the first appliance promotion in 2001, there were no rebates (at least in the IOU service areas) supporting this promotion due to the California Public Utilities Commission (CPUC) timetable in approving the programs.

Flex Your Power recruited — through the mail, e-mail and thousands of phone calls — more than 500 stores, both independent hardware stores and chain retail stores (e.g., Sears, Lowe's, The Home Depot, Orchard) throughout California. Each signed the retailer participation form and committed to conduct home winterizing training for sales associates and spread energy efficiency awareness by displaying and distribut-

Flex Your Power hosted the first ever “summit” in May 2002, which included 150 participants representing virtually all major manufacturers, retailers and IOUs, as well as representatives of the municipal utilities and water agencies. This two-day planning session was the first step of what promises to be an historic and extremely effective ongoing state-wide energy efficiency campaign. Funding for energy efficiency programs will be leveraged by manufacturer and retailer promotional funding, and for the first time, broadcast marketing will be possible. (It was not possible before because of the different programs within each media market.)

■ **Winter Home Improvement Promotion, January 2002:** After the success of the first Appliance Awareness Promotion in August 2001, Flex Your Power provided a second efficiency promotion with the goals of 1) reminding Californians that conservation was still important during the winter, and 2) promoting home improvement efficiency products.

FIGURE 3. Winter Home Improvement Promotion Brochure (back)



ing educational materials. Flex Your Power placed full-page ads in newspapers throughout the State listing participating retailers and promoting energy efficiency.

FIGURE 4. Energy Efficiency Promotion Rebate Card (front)



Flex Your Power then canvassed the stores to ensure that they had received the materials, had trained employees, were displaying signage and fulfilling other requirements listed on the pledge form. More than 98 percent of the stores were also canvassed. A total of 586 stores participated in this promotion, and once again thousands of brochures and signage were distributed in addition to tip cards and training kits to all salespeople.

Based on the success of the appliance and home improvement weeks, Flex Your Power organized a series of quarterly promotional programs to include both appliances and home improvement products for the remainder of 2002. Each program included the same partnership between Flex Your Power and manufacturers and retailers statewide, and each featured products specific to the season in which it was held. For example, in the spring, ceiling fans and other energy-efficient products were promoted to prepare for the summer heat, and summer white sales (appliances) were promoted once again in August.

A total of 1,072 stores participated in the first-ever joint appliances and home improvement initiative in May 2002.

- **Appliance and Home Improvement Promotion, May 2002:** The spring promotion took place the week of May 11. The goal of this first-ever joint appliances and home improvement initiative was again to re-focus consumer attention on the measures they could take in the spring and summer to manage hot weather energy costs and to assist the State in managing the overall energy demand. The promotion built upon the previous promotions, combining the stores and products of the first two promotions and was scheduled to coincide with the announcement of rebates for energy efficiency.

As in the earlier promotions, it was promoted with Flex Your Power recruitment, collateral materials and newspaper advertising. New retailer incentives to this promotion were statewide TV and radio advertising and a second full-page newspaper ad listing the products and partner retail stores.

A total of 1,072 stores participated in this promotion.

FIGURE 5. Energy Efficiency Promotion Rebate Card (back)

Here are some of the rebates included in the 2002 Energy Efficiency Program.	
ENERGY STAR® QUALIFIED APPLIANCES	
Clothes washer	\$75
Dishwasher	\$50
Room air conditioner	\$50
ENERGY STAR QUALIFIED HOME IMPROVEMENT PRODUCTS	
Programmable thermostats: \$20	
Natural gas central furnace (90% AFUE*)	\$200
Central air conditioners	\$100-\$425
Heat pumps	\$175-\$500
ENERGY EFFICIENT HOME IMPROVEMENT PRODUCTS	
Wall insulation	\$0.15/sq. ft.
Attic insulation	\$0.15/sq. ft.
Natural gas storage water heater	\$50
Natural gas central furnace (80% AFUE*)	\$100
Whole-house fan	\$75
Whole-house evaporative cooler	\$300
High-performance windows	\$0.50/sq. ft.

Rebates are offered by the utilities, although not all utilities offer rebates. Rebate terms limited and conditions vary among utilities.

To help you invest in long-term savings, here are some resources that provide information on energy efficiency and available incentives: www.flexyourpower.ca.gov, www.energystar.gov, www.consumerenergycenter.org/rebate, and your local utility's website.

*Annual Fuel Utilization Efficiency

Flex your POWER

- **Appliance and Home Improvement Promotion, August 2002:** This second joint Energy Efficient Appliance, Lighting and Home Improvement Product Promotion launched the week of August 19 and coordinated closely with water agency rebates and promotional programs. Like the May 2002 promotion, it included TV, radio and two

Flex Your Power helped market the California Power Authority Demand Reserve Program, which gave businesses, water agencies and local governments the opportunity to draw down power prior to a staged alert.

full-page newspaper advertisements. All the same commitments, collateral and other elements of the earlier promotions started to become standard for these promotions.

A total of 1,064 stores participated in this promotion.

- **Lighting, Appliance and Home Improvement Promotion, October 2002:** This final Energy Efficient Lighting, Appliance and Home Improvement Promotion of 2002 permanently cemented the concept of coordinated energy efficiency programs statewide in California. The IOUs and most major municipal utilities and water agencies plan to continue coordinating rebate levels and products and have indicated a desire to continue working with Flex Your Power on the planning and marketing of future promotions. As an indication of the program's acceptance, more than 1,200 stores participated with hundreds faxing in their participation agreements within hours of receiving it. These stores have come to expect the coordinated promotions and educational collateral material.

FIGURE 6. April 2002 Energy Efficiency Promotion Lighting Aisle Hangdown



New Programs: 2002

- **Demand Reserve Program:** Flex Your Power began marketing the California Power Authority Demand Reserve Program, which gave businesses, water agencies and local governments the opportunity to draw down power prior to a staged alert. Flex Your Power's efforts to promote the program included:
 - Coordinating with outside input on all marketing documents, including press releases, FAQs, fact sheets and websites
 - Creating target lists of current energy coordinators to perform an initial round of outreach
 - Driving as many leads to the aggregators as possible
 - Outreaching to more than 200 energy coordinators who were deemed eligible for the program
 - Continuing to provide feedback to Automated Power Exchange (APX) and California Power Authority to expand on above-mentioned documents
 - Outreaching to proposed websites to help drive up publicity and information gathering
- **Flex Your Power Awards:** In early 2002, Flex Your Power began planning the first-ever Flex Your Power Energy Conservation Awards program. The awards program was designed to recognize the outstanding actions taken by California's businesses, local governments, water entities and nonprofits to combat the State's energy crisis. In addition, other organizations and businesses received recognition for exemplary leadership in energy conservation and efficiency. The program was modeled after the existing Governor's Environmental and Economic Leadership Awards (GEELA) and was designed in close coordination with GEELA staff from CalEPA and the Resources Agency. The awards program was supported by the State and had a cabinet-level panel

comprised of members of the State and Consumer Services Agency (SCSA), Resources Agency, CalEPA, Technology, Trade and Commerce Agency and the CEC to select the winners.

FIGURE 7. Flex Your Power Award Certificate



Officially launched in March 2002, Flex Your Power developed and broadly distributed an award application on various state websites, in statewide association newsletters and in e-mail and faxes to all of Flex Your Power's energy coordinators (more than 3,000) in businesses, governments and nonprofit organizations statewide. Flex Your Power staff also called the energy coordinators to encourage participation.

The application invited entries in three broad categories: Education and Outreach, Innovative Implementation and Internal Policies and Reforms. The response was overwhelming. In total, Flex Your Power received 92 applications from a diverse set of applicants — businesses big and small, governments urban and rural, state and federal agencies, schools and CBOs.

Before the award applications were sent to the cabinet-level Executive Committee, they were catalogued and screened for completeness. A Blue Ribbon Panel reviewed and scored the applications based on a set of objective review criteria. The Blue Ribbon

Panel offered a diverse set of perspectives and interests, both from inside government and from Flex Your Power partner associations. The panel included: Steven Monk, CalEPA; Chris Wagaman, SCSA; Rande Riedel and Susanne Garfield, CEC; Barbara Hale, CPUC; Susie Wong, California Trade and Technology Commission; Mike Bowman, California Business Roundtable; Cybele Thompson, BOMA; Yvonne Hunter, League of California Cities; and Eric Heitz, The Energy Foundation.

After a week of reviewing the applications, the Blue Ribbon Panel selected 25 award applicants to recommend to the cabinet-level committee. From those 25, the cabinet-level committee chose 22 businesses, local governments, special districts and nonprofit winners. Award winners were presented with a glass trophy; special-recognition winners received a certificate at an awards ceremony in Sacramento on August 20, 2002.

Flex Your Power sent invitations to all applicants and notified the winners beforehand. More than 100 people attended the event, as well as Cabinet Secretaries (Secretary Aileen Adams, State and Consumer Services Agency; Secretary Lon Hatamiya, Technology, Trade, and Commerce Agency; and Secretary Mary Nichols, Resources Agency) and representatives from the CEC. The awards ceremony was covered in the broadcast and print media and in the newsletters of the winning organizations.

- **Best Practice Guides:** As part of Flex Your Power's public education campaign, staff conducted hundreds of interviews with energy contacts at businesses, local governments, water and wastewater agencies and state departments to learn more about the programs they had undertaken in response to California's energy crisis in 2001. The objective was to tell their energy conservation or energy efficiency story in a case study

The response to the Flex Your Power award application was overwhelming. In total, Flex Your Power received 92 applications from a diverse set of applicants.

***Flex Your Power
best practice
guides outlined
the strategies
and methods by
which different
organizations
implemented
their energy
conservation
and efficiency
programs.***

and/or best practice guide format and share the studies with others in the hope that they would replicate the success stories.

Flex Your Power developed a survey consisting of detailed questions about how a project or projects were planned, implemented and monitored, and then identified and contacted a variety of businesses, local governments, water and wastewater agencies and state departments with successful energy conservation or efficiency programs. The focus was on the energy conservation and efficiency measures that were taken in 2001 to help the State avert the energy crisis and reduce energy use at peak times, especially during the summer months.

Throughout the campaign, the staff shared this information with other entities to formulate and expedite programs to save energy. From this information, Flex Your Power developed more than 50 case studies and edited them into 12 different best practice guides. These more comprehensive guides outlined, step by step, the strategies and methods by which the different entities implemented their energy conservation and efficiency programs. The guides covered the following topics:

- **Local Government**
 - Reduce Energy Use in Local Government Facilities Through Conservation Measures
 - Reduce Energy Use in Local Government Facilities Through Efficiency Improvements
 - Promote Energy Conservation and Efficiency Through a Public Outreach Campaign
 - Promote Energy Conservation and Efficiency Through Public Services, Incentives and Technical Assistance
 - Target Low-Income and Senior Populations for Energy Conservation
- **Business**
 - Reduce Energy Use in Commercial Facilities Through Conservation Measures and Efficiency Improvements
 - Reduce Energy Use in Industrial and Manufacturing Facilities Through Conservation and Efficiency Measures
 - Target Business Employees for Energy Conservation in the Workplace
 - Promote Energy Conservation and Efficiency Through a Public Outreach Campaign
- **Water and Wastewater Agency**
 - Reduce Energy Use in Water and Wastewater Facilities Through Conservation and Efficiency Measures
 - Promote Energy Conservation and Efficiency Through Public Outreach, Incentives and Assistance
- **State Agency**
 - Reduce Energy Use in State Facilities Through Conservation Measures

This book recognizes businesses, local governments, water and wastewater agencies and state departments for their extraordinary contribution to energy conservation and efficiency in California in 2001, and serves to provide others with a framework for creating similar, successful programs.



Chapter 7:

Flex Your Power: Results

Overview 2001

By many accounts, the 2001 Flex Your Power campaign was the most successful energy conservation campaign in history. It helped Californians effectively conserve up to 5,570 megawatts (MW) at peak — surpassing the most optimistic projections — and kept California free of blackouts from February through December 2001. In January 2002, the California Energy Commission (CEC) released data that stated Californians used 8.9 percent less electricity during peak hours and 6.7 percent less energy overall in 2001 when compared with 2000's electricity use.¹ There were 29 days during the summer of 2000 when the demand in the California Independent System Operator's (California ISO) area exceeded 40,000 MW. There were only six of these high-demand days during the summer of 2001.²

Some experts have contended that California reduced its energy use because its economy was in a recession during the summer of 2001 or because the weather was cooler than in previous summers. But statistics do not support these theories. There was, in fact, a general increase in economic activity from 2000 to 2001 at the same time that electricity demand fell. Secondly, the summers of 2000 and 2001 each ranked as the 25th warmest summer in more than a century, yet Californians averaged a 10 percent cut in their electricity use during summer peak hours, and reached an astonishing 14 percent at peak (5,570 MW) in June.³

To be clear, many factors contributed to the incredible energy savings. Front-page press creating a crisis atmosphere and voluntary actions stimulated by the campaign's media and initiatives certainly played a role. There was also no shortage of motivations: fear of high rates, potential cost savings, the 20/20 and other rebate programs, altruistic reasons and, of course, mandates such as the governor's executive order on outdoor lighting and CEOs' directives to corporate energy managers to cut energy use. Flex Your Power organized all of these factors into a clear strategy, concise messages, a realistic timetable and the governor and the Legislature provided the needed funding, tools and support, without which these results would not have occurred.

Governor Gray Davis said after the first year of the Flex Your Power campaign, "I am proud of what Californians accomplished. Many experts doubted that conservation alone

Flex Your Power helped Californians conserve up to 5,570 MW at peak and kept California free from blackouts from February through December 2001.

1. Press Release, "Governor Davis Announces Energy Conservation Made the Difference in 2001," Feb. 26, 2002, PR02:101. Numbers adjusted for weather and growth.

2. "Summer 2001 Conservation Report," p. 16.

3. Ibid, p. 15-16.

Peak demand in June 2001 was reduced by roughly 14 percent when compared to peak demand in June 2000.

could make a crucial difference. Californians truly flexed their power, conserved at unheard of levels and saved money. Energy conservation and improved efficiency made a crucial difference in 2001.”

**FIGURE 1. Monthly Peak Demand Reduction in 2001
(Percent change 2000 to 2001)**

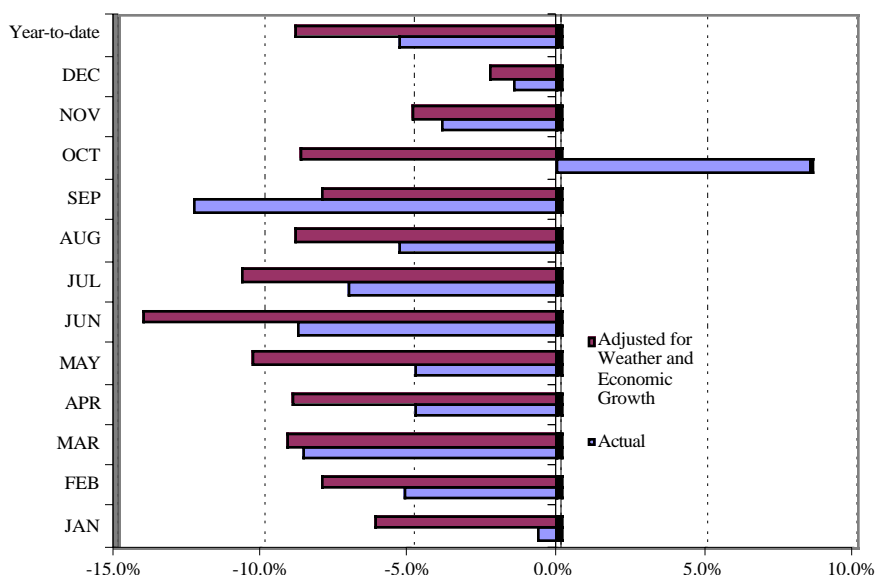
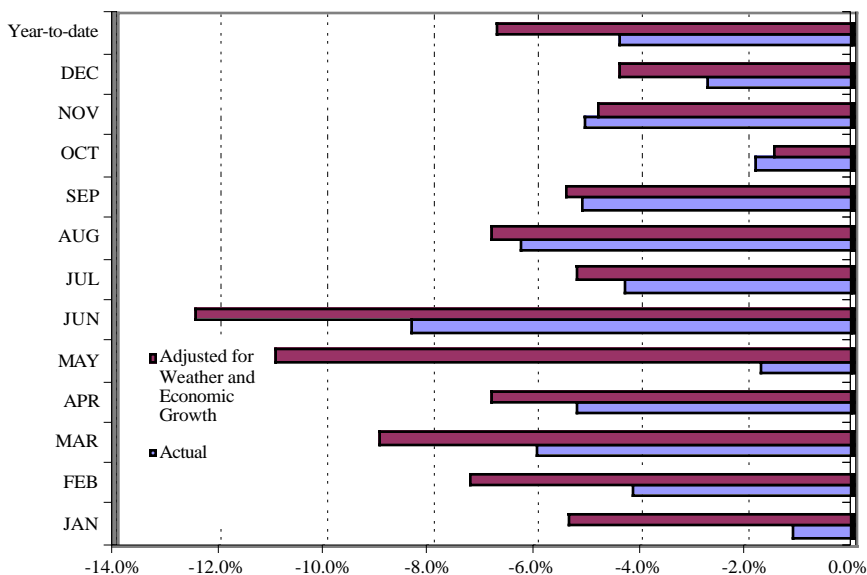


FIGURE 2. Monthly Energy Reduction in 2001 (Percent change 2000 to 2001)



2001 Energy Savings By Sector, Source and Initiative

Though it is difficult to know precisely where the savings came from, the campaign, working with the CEC, the California Public Utilities Commission (CPUC) and the Power Authority, made these estimates:

TABLE 1-1. 2001 Energy Savings Summary Highest Peak Use: 39,613 MW

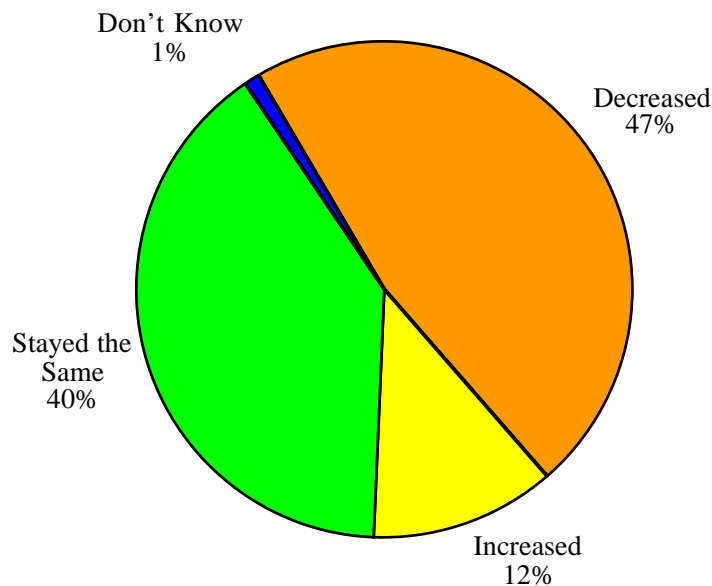
Sector	Sector%	Sector MW	Efficiency MW	Conservation MW	Total MW	Sector %
Residential	34.5	13,666	494	1,818	2,312	16.9%
Commercial	35.1	13,904	383	1,599	1,982	14.3%
Government	3.9	1,545	189	97	286	18.5%
Industrial	22.1	8,715	2	808	810	9.3%
Agriculture	4.5	1,783	39	141	180	10.1%
Totals:	100	39,613	1,107	4,463	5,570	14.1%

Roughly 47 percent of the residential retail electric customers reduced energy consumption during 2001 compared with earlier years.

Residential

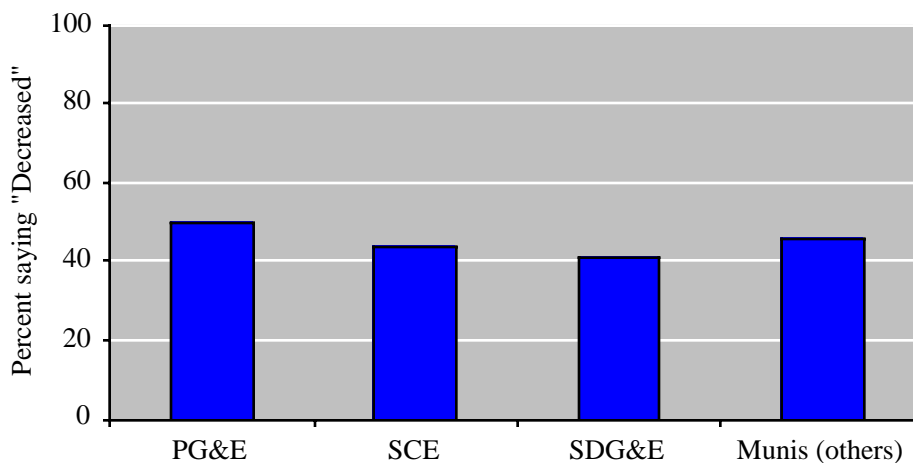
Some market research, beyond that which was referred to earlier, was conducted to help measure the results of Flex Your Power's outreach efforts to California residents. According to the California Energy Efficiency Residential Market Research Study, which was conducted by E Source in the first two weeks of October 2001, about 47 percent of residential retail electric customers in California reduced their consumption during 2001 compared with earlier years, and energy usage decreased in all service territories at similar percentages.

FIGURE 3. Energy Use Increase/Decrease Compared to 2000



Seven out of 10 Californians implemented energy conservation measures — mostly “no-cost” and “low-cost” — in 2001.

FIGURE 4. Percent of Those Saying Energy Use Decreased, by Utility

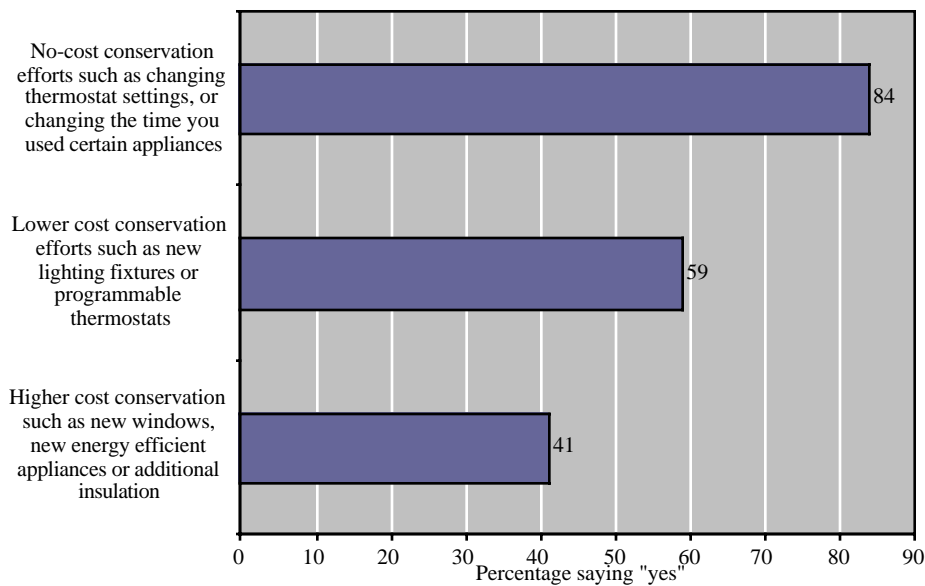


Base: Total sample. Those whose consumption “decreased.”

Source: California Energy Efficiency Residential Market Research Study, conducted by E Source, October 2001.

E Source conducted 20-minute phone interviews of a random sample of 400 residential customers throughout the state of California, including customers of investor-owned utilities (IOUs), municipals and co-ops. Other key findings of the study included:

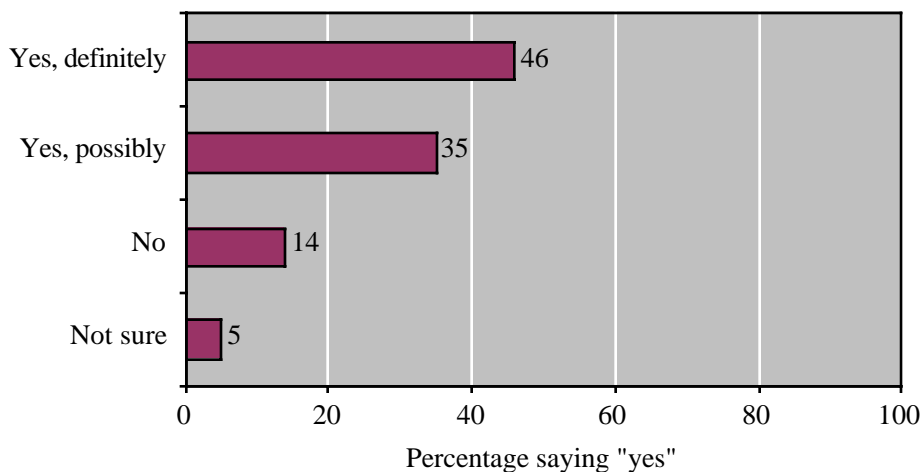
- Seven out of 10 California consumers implemented energy efficiency measures since the energy crisis in California began.
- Eighty-four percent of those consumers took “no-cost” measures related to usage cutbacks and 59 percent took “low-cost” measures related to investments in items such as energy-efficient light bulbs or programmable thermostats.

FIGURE 5. Types of Energy Efficiency Measures Taken

Eighty-four percent of those who implemented energy efficiency measures would do the same in 2002 if the situation remained the same.

Base: Those who have implemented energy efficiency measures since the energy crisis in California began.
Source: California Energy Efficiency Residential Market Research Study, conducted by E Source, October 2001.

The study also found that the vast majority of those polled believe that actions of individuals helped California avoid power outages during the summer of 2001 (see Figure 7-6.). And 84 percent of those who implemented energy efficiency measures in 2001 said they would do the same thing in 2002 if the situation remained the same⁴ (see Figure 7-7.).

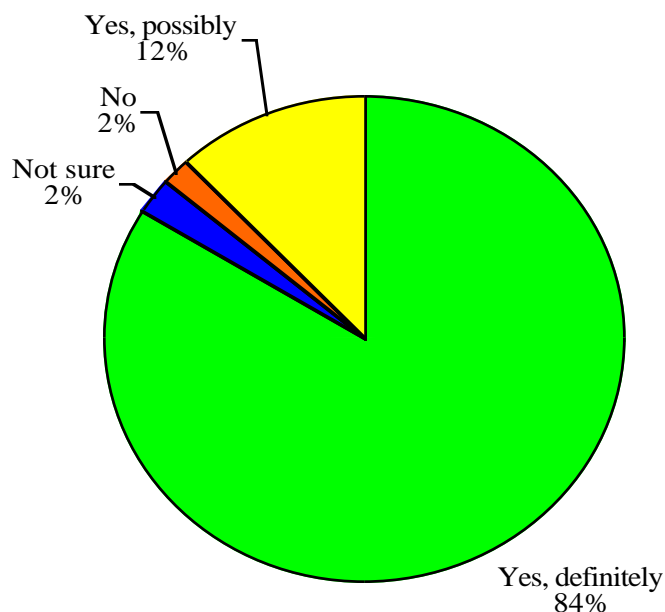
FIGURE 6. Did Your Efforts Help Contribute to an Improved Energy Situation This Summer?

Base: Those who have implemented energy efficiency measures since the energy crisis in California began.
Source: California Energy Efficiency Residential Market Research Study, conducted by E Source, October 2001.

4. E Source, "California Energy Efficiency Residential Market Research Study," October 2001.

The conservation measures undertaken by the commercial and industrial sectors were dominated by no-cost practices, such as removing lights.

FIGURE 7. Will You Do The Same Thing Next Year If the Situation Remains the Same?



Base: Those who have implemented energy efficiency measures since the energy crisis in California began.
Source: California Energy Efficiency Residential Market Research Study, conducted by E Source, October 2001.

Commercial and Industrial

The CEC also attempted to describe how public and private organizations responded to the energy crisis during the summer of 2001 by drawing from two data sources: the Statewide Small/Medium Nonresidential Customer Needs and Wants Study: Final Report by Quantum Consulting and Xenergy Inc. in July 2001, and interviews conducted by Washington State University (WSU) in the fall of 2001. Key findings included:

- Public sector organizations and small/medium businesses were “impacted” most by higher energy prices, according to WSU and Quantum/Xenergy.
- The Quantum/Xenergy data indicates the institutional segment expressed the greatest general concern over blackouts (45 percent).
- The circumstances of the summer of 2001 raised the risk of not doing energy conservation.
- No-cost conservation practices that involved modifying behavior dominated all reported activities in the Quantum/Xenergy study. Removing lights to reduce lighting levels provided a very visible response in many organizations.
- For peak-load reduction, voluntary curtailment actions such as turning off equipment and lights dominated in the actions reported to WSU researchers.
- Public and private organizations alike used peers and peer organizations as sources and models for actions to take. Quantum/Xenergy found that more than 50 percent of small/medium businesses belonged to either a community-based organization or trade/industry group.
- Many organizations interviewed by WSU believed they had reduced their electricity demand and had contributed to the lack of blackouts.

- The Quantum/Xenergy study found the conservation actions to be crisis-driven. Among small/medium customers, 94 percent reported they would conserve “as long as the crisis lasts or as long as necessary.”

Government

The State Leadership, Energy-Efficient Communities/Local Government and Save Water — Save Energy Initiatives helped to deliver the following successes for the government sector in 2001 and continue to do so in 2002. Additionally, we know the following from actual energy-use data in many state buildings and through surveys and commitments made by local governments:

- State office buildings cut energy use by an average of 22 percent in 2001, including a 26 percent reduction in June.
- Updated energy efficiency building standards are saving an estimated 200 MW a year. In five years, the savings are expected to reach 1,000 MW a year — enough electricity to power an estimated 750,000 homes.
- Many local governments took some notable action during the year to save energy. Fifty-eight percent of those activities could be considered conservation, such as delamping offices; turning off unused electrical equipment; launching public education efforts; shifting load off-peak; and cutting air conditioning use at peak. Forty-two percent of their activities could be considered installed or sustained efficiency, such as replacing traffic lights with low-emitting diodes (LEDs); replacing heating, ventilating and air conditioning (HVAC) systems; installing timers/motion sensors on appliances and lights; installing new efficient water pumps; and upgrading lighting systemwide (fluorescent to T12s).
- Flex Your Power secured 261 energy coordinators from water agencies to cut energy use by 15 percent in their facilities. Many agencies implemented a variety of conservation (shifting equipment use to off-peak; installing energy management systems; altering heating and cooling settings) and efficiency measures (testing, cleaning and maintaining equipment; installing energy-efficient motors; retrofitting lighting).

State office buildings cut energy use by an average of 22 percent in 2001, including a 26 percent reduction in June.

Agriculture

The agriculture sector is the hardest to gauge and because of the summer growing season’s demanding energy use (irrigation pumping and processing), it had the hardest time conserving.

Nevertheless, Flex Your Power successfully disseminated the conservation message throughout the sector. The campaign sent out 53,000 brochures with basic information on funding programs to: county farm bureaus (15,000); trade shows and events (3,000); agricultural energy and irrigation organizations (10,000); education events (5,000); and additional agricultural groups (20,000). And approximately the same number of bilingual educational brochures on time metric and other irrigation-specific savings for irrigators were distributed through the same channels.

Overview 2002

By the end of 2002, the State’s efforts, including the Flex Your Power campaign, had successfully educated Californians about conservation and helped instill it as a way of life. The campaign had helped the State escape two high-temperature summers without black-

By the end of 2002, the State's efforts, including the Flex Your Power campaign, had successfully educated Californians about conservation and helped instill it as a way of life.

outs and lessened the risks of an energy shortage in the future. Unlike 2001, in which the California ISO declared 70 Stage 1, 65 Stage 2 and 38 Stage 3 energy emergencies in the just the first half of the year, 2002 had only one Stage 2 energy emergency and no Stage 1 or 3 energy emergencies. Data from the State conservation programs, such as the 20/20 program, demonstrated that Californians continued to save energy and money. Approximately 33 percent of San Diego Gas and Electric (SDG&E) customers, 32 percent of Southern California Edison (SCE) customers and 29 percent of Pacific Gas & Electric (PG&E) customers qualified for 20 percent rebates in August 2002, according to preliminary numbers from the CPUC. These resources conserved at least 20 percent as compared with 2001.

Following the unveiling of the new "Power to the People" Flex Your Power ad in October 2002, which featured the John Lennon song by the same name and thanked Californians for embracing energy conservation and efficiency, Governor Davis congratulated Californians for stepping up to the energy challenge. He stated, "By flexing their power, Californians have made all the difference. This has helped save energy statewide and kept money in the pockets of consumers."



Appendix A:

*Executive Orders Issued Between 2000
and 2002 Related to Energy
Conservation and Efficiency*

Governor Gray Davis issued a total of 27 Executive Orders on energy between August 2000 and December 2002. The following pertain to energy conservation and efficiency.

Executive Order D-15-00

Executive Order D-16-00

Executive Order D-18-01

Executive Order D-19-01

Executive Order D-30-01

Executive Order D-33-01

Executive Order D-56-02

EXECUTIVE ORDER D-15-00 by the Governor of the State of California

WHEREAS, the California Energy Commission has determined that California faces potentially severe shortages of electricity this summer that could extend into the summers of 2001 and possibly 2002; and

WHEREAS, the California Independent System Operator (ISO), a not-for-profit corporation, is responsible for managing the State electrical power grid; and

WHEREAS, during periods of peak demand the California Independent System Operator (ISO) may declare in progressive stages an Electrical Emergency, depending upon the amount of reserve generation available to the California electrical grid; and

WHEREAS, conscientious management practices at State facilities can reduce energy consumption; and

WHEREAS, during periods in which electrical demand puts strains on the electric systems of the state's utilities every effort to reduce energy demand and increase needed electricity supplies is critical to ensuring the stability of the electrical grid; and

WHEREAS, the state's effort to lead, shed electrical loads, and encourage load shedding by other consumers can have an important impact on statewide energy supplies and reduce the seriousness of some future situations; and

WHEREAS, if local and federal government facilities, business and residential consumers followed the State's lead during an emergency and similarly reduced their power by two to three percent or more, many severe electricity emergencies could be averted.

NOW, THEREFORE, I, GRAY DAVIS, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, do hereby issue this order to become effective immediately:

1. Direct the State and Consumer Services Agency in consultation with the Department of General Services; the Business, Transportation and Housing Agency in consultation with the Department of Transportation; the Youth and Adult Correctional Agency in consultation with the Department of Corrections and the Youth Authority; and the Resources Agency in consultation with the Department of Water Resources to immediately institute energy conservation measures that will reduce energy consumption during stage II and stage III electrical emergencies.
2. Direct the aforementioned agencies and departments, under the leadership of the State and Consumer Services Agency to coordinate response efforts for any future electrical emergencies, to monitor the effectiveness of responses and to develop training programs for State facility managers.
3. Direct the State and Consumer Services Agency in consultation with the Department of General Services and the Office of Emergency Services to develop and implement a comprehensive communications strategy to ensure that critical information regarding any energy emergency accurately and quickly flows from the utilities to the agencies of State government and their facility managers.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this the second day of August 2000.

/s/ Gray Davis

Governor of California

EXECUTIVE ORDER D-16-00 by the Governor of the State of California

WHEREAS, California is committed to providing leadership on energy, environmental and public health issues by implementing innovative and resource-efficient public building design practices and other state government programs that improve the lives of California's 34.5 million residents; and

WHEREAS, the state invests approximately two billion dollars (\$2,000,000,000) annually for design, construction and renovation, and more than six hundred million dollars (\$600,000,000) annually for energy, water, and waste disposal at state-funded facilities; and

WHEREAS, a building's energy, water, and waste disposal costs are computed over a twenty-five year period, or for the life of the building, and far exceed the first cost of design and construction; and

WHEREAS, an opportunity exists for the State of California to foster continued economic growth and provide environmental leadership by incorporating sustainable building practices into the state capital outlay and building management processes; and

WHEREAS, sustainable building practices utilize energy, water, and materials efficiently throughout the building life cycle; enhance indoor air quality; improve employee health, comfort and productivity; incorporate environmentally preferable products; and thereby substantially reduce the costs and environmental impacts associated with long-term building operations, without compromising building performance or the needs of future generations; and

WHEREAS, the widespread adoption of sustainable building principles would result in significant long-term benefits to the California environment, including reductions in smog generation, runoff of water pollutants to surface and groundwater sources, the demand for energy, water and sewage treatment services, and the fiscal and environmental impacts resulting from the expansion of these infrastructures; and

WHEREAS, it is critical that my Administration provide leadership to both the private and public sectors in the sustainable building arena;

NOW, THEREFORE, I, GRAY DAVIS, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, do hereby establish a state sustainable building goal and issue this order to become effective immediately:

The sustainable building goal of my administration is to site, design, deconstruct, construct, renovate, operate, and maintain state buildings that are models of energy, water, and materials efficiency; while providing healthy, productive and comfortable indoor environments and long-term benefits to Californians.

The Secretary for State and Consumer Services (hereinafter referred to as "the Secretary") shall facilitate the incorporation of sustainable building practices into the planning, operations, policymaking, and regulatory functions of State entities. The objectives are to implement the sustainable building goal in a cost effective manner, while considering externalities; identify economic and environmental performance measures; determine cost savings; use extended life cycle costing; and adopt an integrated systems approach. Such an approach treats the entire building as one system and recognizes that individual building features, such as lighting, windows, heating and cooling systems, or control systems, are not stand-alone systems.

In carrying out this assignment, the Secretary shall broadly consult with appropriate private sector individuals and public officials, including the Director of the Department of Finance; the Secretary of Business, Transportation, and Housing; the Secretary for Education; the Secretary for Environmental Protection; the Secretary of Health and Human Services; and the Secretary for Resources. The Secretary shall submit a report to the Governor within six months of the date of this order, containing a recommended strategy for incorporating sustainable building practices into development of State facilities including leased property.

Thereafter, on an annual basis, the Secretary shall report on the activities and on the efforts of all State entities under the Governor's jurisdiction to implement the Governor's sustainable building strategy. The Secretary shall devise a method for compiling such information and reporting it to the Governor and the Legislature.

All State entities under the Governor's jurisdiction shall cooperate fully with the Secretary and provide assistance and information as needed. The Regents of the University of California, Boards of Governors of Community College Districts, Trustees of the California State Universities, the State Legislature, and all Constitutional Officers are encouraged to comply with the Executive Order.

Nothing in this Order shall be construed to confer upon any state agency decision-making authority over substantive matters within another agency's jurisdiction, including any informational and public hearing requirements needed to make regulatory and permitting decisions.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this the second day of August 2000.

/s/ Gray Davis

Governor of California

EXECUTIVE ORDER D-18-01 by the Governor of the State of California

WHEREAS, on January 17, 2001, I proclaimed a State of Emergency to exist due to the energy shortage in the State of California; and

WHEREAS, on January 11, 2001, California submitted to the Federal Energy Regulatory Commission a certification that the state “will initiate a program to reduce peak load electricity consumption” in response to the U.S. Secretary of Energy’s mandate that “all California consumers make the maximum effort to reduce electricity use and conserve power”; and

WHEREAS, some consumers are not aware of all they can do to reduce energy consumption. Specific awareness campaigns can encourage and educate consumers about effective conservation strategies; and

WHEREAS, the Department of Consumer Affairs is charged with promoting and protecting the interest of California’s consumers and serving as an advocate for their health, safety, privacy and economic well-being;

NOW, THEREFORE, I, GRAY DAVIS, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and the statutes of the State of California, including the California Emergency Services Act, and in furtherance of my Proclamation of a State of Emergency, do hereby issue this order:

IT IS ORDERED that the Department of Consumer Affairs conduct a media awareness campaign to inform the public on the importance of, and methods to, reduce energy consumption and resulting savings;

IT IS FURTHER ORDERED that this campaign shall be paid for with any funds available to the Department of Consumer Affairs including, but not limited to, funds available to the Department pursuant to Government Code section 8628, funds directed from the Energy Efficiency Public Goods Charge by the Public Utilities Commission, and any other appropriations available to the Department;

IT IS FURTHER ORDERED that the Department shall enter into any contracts necessary in furtherance of this order as expeditiously as possible, and is hereby authorized to do so, notwithstanding the provisions of the Government Code and the Public Contract Code applicable to state contracts, including but not limited to, advertising and competitive bidding requirements, which provisions are suspended pursuant to Government Code section 8571 to the extent that they would prevent, hinder or delay the prompt mitigation of the effects of this emergency.

I FURTHER DIRECT that as soon as hereafter possible, this order shall be filed with the Office of the Secretary of State and that widespread publicity and notice be given to this order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this the first day of February 2001.

/s/ Gray Davis

Governor of California

EXECUTIVE ORDER D-19-01 by the Governor of the State of California

WHEREAS, on January 17, 2001, I proclaimed a State of Emergency to exist due to the energy shortage in the State of California; and

WHEREAS, efforts by California residents to conserve energy are essential to alleviating the energy shortage; and

WHEREAS, substantial amounts of electricity are consumed through unnecessary outdoor lighting by retail establishments after business hours, including but not limited to, shopping centers, auto malls and dealerships; and

WHEREAS, it is imperative that unnecessary consumption of electricity be eliminated to mitigate the effects of this emergency; and

WHEREAS, the energy shortage is a matter of public safety;

NOW, THEREFORE, I, GRAY DAVIS, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and the statutes of the State of California, including the California Emergency Services Act, and in furtherance of my Proclamation of a State of Emergency, do hereby issue this order:

All California retail establishments, including but not limited to shopping centers, auto malls and dealerships, shall substantially reduce maximum outdoor lighting capability during non-business hours, except as necessary for the health and safety of the public, employees, or property. "Maximum outdoor lighting capability" means the total amount of wattage used in outdoor lighting to illuminate the outdoor premises of the retail establishment.

On or before February 9, 2001, the Office of Emergency Services in consultation with the Commissioner of the California Highway Patrol and the Sheriffs of the following counties: Los Angeles, Orange, Santa Barbara, Alameda, Shasta, Stanislaus, Sacramento, Fresno, and San Bernardino shall develop plans: (1) for the voluntary implementation of this order as soon as practicable and (2) the mandatory implementation of the provisions of this order by March 15, 2001.

The Technology, Trade and Commerce Agency shall be responsible for publication, notification, and communication about this Executive Order to the public, retail establishments and local officials. The State and Consumer Services Agency and the Office of Emergency Services shall assist the Technology, Trade and Commerce Agency, as needed. The Technology, Trade and Commerce Agency, working with the State and Consumer Services Agency, shall submit a report recommending additional steps by commercial establishments to conserve energy.

Failure to comply with this order following a warning by law enforcement officials shall be punishable as a misdemeanor with a fine not to exceed \$1000, in accordance with section 8665 of the California Government Code.

I FURTHER DIRECT that as soon as hereafter possible, this order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this the first day of February 2001.

/s/ Gray Davis

Governor of California

EXECUTIVE ORDER D-30-01 by the Governor of the State of California

WHEREAS, on January 17, 2001, I proclaimed a State of Emergency to exist due to the energy shortage in the State of California;

WHEREAS, there is a high probability that the shortage of electricity will continue to cause rolling blackouts throughout California affecting millions;

WHEREAS, significant conservation efforts are needed to mitigate the effects of this emergency;

WHEREAS, consumers will reduce their energy consumption if provided financial incentives and additional tools to promote energy efficiency in their homes; and

WHEREAS, it is estimated that an effective rate reward program can help reduce energy consumption by up to 3,500 gigawatt hours over twenty-four hours and up to 2,200 megawatt hours during critical summer peak consumption periods.

NOW, THEREFORE, I, Gray Davis, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, including the California Emergency Services Act, do hereby issue this order to become effective immediately:

IT IS ORDERED that the Department of Water Resources shall implement a limited-term rate reward program for conservation efforts by residential, commercial and industrial customers of electric corporations. Under this program, electric corporations shall provide rate reductions to consumers with credits of up to twenty percent of the customer's Summer 2001 bills for reducing electricity consumption by at least twenty percent during June to September 2001. The program will be financed through a reduction in the electric corporations' payments to the Department of Water Resources in subsequent months.

IT IS FURTHER ORDERED that the Public Utilities Commission is requested to direct electric corporations to submit programs to carry out this Executive Order and promote consistency in its implementation.

IT IS FURTHER ORDERED that the Department of Consumer Affairs shall incorporate this program into its media awareness campaign for maximum public participation.

IT IS FURTHER ORDERED that this order shall expire on December 31, 2001, unless extended or terminated earlier by a subsequent Executive Order.

I FURTHER DIRECT that as soon as hereafter possible, this order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this the thirteenth day of March 2001.

/s/ Gray Davis

Governor of California

EXECUTIVE ORDER D-33-01 by the Governor of the State of California

WHEREAS, on January 17, 2001, I proclaimed a State of Emergency to exist due to the energy shortage in the State of California; and

WHEREAS, there is a high probability that the shortage of electricity will continue to cause rolling blackouts throughout California affecting millions; and

WHEREAS, consumers will reduce their energy consumption if provided financial incentives and additional tools to promote energy efficiency in their homes and businesses; and

WHEREAS, it is estimated that an effective rate reward program can help reduce energy consumption by up to 3,500 gigawatt hours over twenty-four hours and up to 2,200 megawatt hours during critical summer peak consumption periods; and

WHEREAS, on March 13, 2001, I issued Executive Order D-30-01 establishing the California 20/20 Rebate Program, a limited term rate reward program for those energy customers of electrical corporations who reduce their electricity consumption in excess of twenty percent of during June to September 2001; and

WHEREAS, the customers of the San Diego Gas and Electric Company electric corporation reduced their electricity use by about seven percent last summer;

NOW, THEREFORE, I, Gray Davis, Governor of the State of California, by virtue of the power and authority vested in me by the constitution and statutes of the State of California, including the California Emergency Service Act, do hereby issue this order to become effective immediately:

IT IS ORDERED that the limited term rate reward program established by Executive Order D-30-01 is amended to provide that the customers of San Diego Gas and Electric Company shall be eligible for a twenty percent rate reward based on a fifteen percent reduction in their electricity consumption.

IT IS FURTHER ORDERED that in all respects other than changing the rebate threshold for San Diego Gas and Electric Company from twenty percent to fifteen percent, the program established by Executive Order D-30-01 shall remain unchanged.

IT IS FURTHER ORDERED that this order shall expire on December 31, 2001, unless extended or terminated earlier by a subsequent Executive Order.

I FURTHER DIRECT that as soon as hereafter possible, this order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this the twenty-sixth day of April 2001.

/s/ Gray Davis

Governor of California

EXECUTIVE ORDER D-56-02 by the Governor of the State of California

WHEREAS, on January 17, 2001, I proclaimed a State of Emergency to exist due to the energy shortage in the State of California; and

WHEREAS, California continues to suffer the effects of the 2001 energy emergency caused by artificial shortages and market manipulation; and

WHEREAS, there remains a significant probability that these disruptions pose a threat of rolling blackouts throughout California affecting millions; and

WHEREAS, the associated high electricity prices have a serious impact upon the finances of the State and result in billions of dollars charged to California's consumers, businesses, utilities and taxpayers; and

WHEREAS, the unprecedented conservation efforts of the People of California during the summer of 2001 mitigated the effects of the energy emergency in the past and continued efforts are needed during the critical summer peak; and

WHEREAS, consumers have proven that they will reduce their energy consumption if provided financial incentives and additional tools to promote energy efficiency in their homes; and

WHEREAS, the customers of the San Diego Gas and Electric Company electric corporation reduced their electricity use by about seven percent in the summer of 2000; and

WHEREAS, it is estimated that the 20/20 rate reward program offered in the summer of 2001 was a key component of achieving 2,600 MW of peak demand savings during the June to September 2001 critical summer peak consumption months; and

NOW, THEREFORE, I, Gray Davis, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, including the California Emergency Services Act, do hereby issue this order to become effective immediately:

IT IS ORDERED that the Department of Water Resources shall implement a limited-term rate reward program for conservation efforts by residential customers of the electric corporations. Consistent with the 20/20 rate reward program offered in 2001, under this program, electric corporations shall provide rate reductions to consumers with credits of up to twenty percent of the customer's Summer 2002 bills for reducing electricity consumption by the minimum threshold set for their service area during July to October 2002. The minimum reduction threshold for the Pacific Gas and Electric and the Southern California Edison service areas should be twenty percent reduction over the corresponding July to October 2000 usage. The minimum reduction threshold for the San Diego Gas and Electric service areas should be fifteen percent reduction over the corresponding July to October 2000 usage. The program will be financed through a reduction in the electric corporations' payments to the Department of Water Resources in subsequent months.

IT IS FURTHER ORDERED that the Public Utilities Commission is requested to direct electric corporations to submit programs to carry out this Executive Order and promote consistency in its implementation.

IT IS FURTHER ORDERED that this order shall expire on December 31, 2002, unless extended or terminated earlier by a subsequent Executive Order.

I FURTHER DIRECT that as soon as hereafter possible, this order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this the twenty-third day of May 2002.

/s/ Gray Davis

Governor of California